BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In The Matter Of The Application Of HAWAIIAN ELECTRIC COMPANY, INC. HAWAII ELECTRIC LIGHT COMPANY, INC. MAUI ELECTRIC COMPANY, LIMITED For Approval of a PV Host Pilot Program, Recovery of Program Related Expenses through Designated Recovery Mechanisms, Inclusion of Related Purchased Energy Costs in the Energy Cost Adjustment Clause, and Approval to Commit Funds in Excess of $2,500,000.	DOCKET NO. 2009-0098

HECO, HELCO, AND MECO'S APPLICATION

EXHIBIT A

VERIFICATION

and

CERTIFICATE OF SERVICE

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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In The Matter Of The Application Of **HAWAIIAN ELECTRIC COMPANY, INC.** **HAWAII ELECTRIC LIGHT COMPANY, INC.** **MAUI ELECTRIC COMPANY, LIMITED** **For Approval of a PV Host Pilot Program, Recovery of Program Related Expenses through Designated Recovery Mechanisms, Inclusion of Related Purchased Energy Costs in the Energy Cost Adjustment Clause, and Approval to Commit Funds in Excess of $2,500,000.**	**DOCKET NO.**

APPLICATION

TO THE HONORABLE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII:

HAWAIIAN ELECTRIC COMPANY, INC. ("HECO"), HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO") and MAUI ELECTRIC COMPANY, LIMITED ("MECO"), individually "Company" and collectively referred to as the "Companies" or "Hawaiian Electric Companies", respectfully request that the Public Utilities Commission of the State of Hawaii ("Commission") (1) find it reasonable for each Company to establish a two-year Photovoltaic ("PV") Host Pilot Program ("Program") which would target the cumulative installation of 8 MW, 4 MW, and 4 MW of PV at HECO, HELCO, and MECO, respectively; (2) find that each Company's purchased energy rate for the energy to be supplied by the Program PV systems is reasonable; (3) approve each Company's proposed standard form PV Host solar energy purchase agreement ("SEPA"); (4) approve the inclusion of the purchased energy charges, and related revenue taxes, to be incurred under the SEPAs filed pursuant to the PV Host Pilot Program, to

the extent not included in base rates, in each Company's respective Energy Cost Adjustment Clause ("ECAC") pursuant to Section 6-60-6 of the Hawaii Administrative Rules ("HAR"); (5) approve the inclusion of the reasonable costs that each Company incurs for interconnection of PV systems installed pursuant to the Program in the Renewable Energy Infrastructure Surcharge; (6) allow each Company to include the reasonable costs it incurs pursuant to the Program in its revenue requirements for ratemaking purposes and for the purpose of determining the reasonableness of each Company's rates; (7) approve the commitment of funds in excess of $2,500,000 for the PV Host Pilot Program (currently estimated at $10,508,000); and (8) grant each Company such other relief as may be just and equitable in the premises.

Under the PV Host Pilot Program, the utility will lease rooftops or other sites from customers ("Hosts") meeting certain criteria and coordinate installation of PV systems by third-party PV developers/owners. A specific focus of the Program will be to target governmental facilities, including County, State, and Federal sites where appropriate. All PV systems installed under the Program will be non-utility owned, and the utility will purchase all of the energy produced by the PV systems from the PV developers under SEPAs. The Hosts will be paid a monthly lease payment based on the total peak capacity ("kWp")[1] of the PV systems installed at the Hosts' site(s) under the Program. Multiple sites may be enrolled by the same Host customer.

Approval of each Company's Program is intended to facilitate the installation of up to 16 MW of new PV systems within the Companies' service territories over a two year period, twice the total amount of installed PV at the end of calendar year 2008, and potentially provide approximately 22 GWh[2] of renewable energy each year when fully implemented. The proposed

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[1] Total peak capacity is the collective manufacturer nameplate power rating.

[2] Based on an average capacity factor of approximately 16%.

Programs will rely solely on non-utility owned PV systems, providing independent solar developers and installers substantial business opportunities. The proposed Programs will also provide the Companies with valuable experience with larger PV systems of differing types, and greater ability to actively monitor and control PV system performance, specifications of PV systems, and integration with the utility grid. Finally, by facilitating systematic development of larger PV systems on a mass basis, it is anticipated that economies of scale will allow more cost-effective acquisition of PV energy for ratepayers.

Development of the PV Host Program is acknowledged in the Hawaii Clean Energy Initiative ("HCEI") Agreement (the "HCEI Agreement"), executed October 20, 2008 by the Hawaiian Electric Companies, the State of Hawaii, and the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs ("Consumer Advocate"). The PV Host Program is described in the Solar Opportunity section of the HCEI Agreement (HCEI Agreement, pages 12-13). Additional information on the HCEI Agreement is provided in Section III of this Application.

The proposed PV Host Programs will also provide valuable cost information and project development experience for consideration in the future development of a feed-in tariff for larger PV projects, should feed-in tariffs be adopted by the Companies pursuant to a Commission order. A discussion of how the proposed Programs may interact with the development of a feed-in tariff is provided in Section III.

To facilitate Commission review, this Application is organized in the following manner:

Section III - PV Host Pilot Program Objectives and Regulatory Context

Section IV - Program Overview

Section V - Program Justification

I.

HECO, whose principal place of business and whose executive offices are located at 900 Richards Street, Honolulu, Hawaii, is a corporation duly organized under the laws of the Kingdom of Hawaii on or about October 13, 1891, and is now existing under and by virtue of the laws of the State of Hawaii. HECO is an operating public utility engaged in the production, purchase, transmission, distribution, and sale of electricity on the island of Oahu.

HELCO, whose principal place of business and whose executive offices are located at 1200 Kilauea Avenue, Hilo, Hawaii, is a corporation duly organized under the laws of the Republic of Hawaii on or about December 5, 1894, and is now existing under and by virtue of the laws of the State of Hawaii. HELCO is an operating public utility engaged in the production, purchase, transmission, distribution, and sale of electricity on the island of Hawaii.

MECO, whose principal place of business and whose executive offices are located at 210 Kamehameha Avenue, Kahului, Hawaii, is a corporation duly organized under the laws of the Territory of Hawaii on or about April 28, 1921, and is now existing under and by virtue of the laws of the State of Hawaii. MECO is an operating public utility engaged in the production, purchase, transmission, distribution, and sale of electricity on the islands of Maui; the production, transmission, distribution, and sale of electricity on the island of Molokai; and the production, distribution, and sale of electricity on the island of Lanai.

II.

Correspondence and communications in regard to this application should be addressed to:

Dean Matsuura
Manager, Regulatory Affairs
Hawaiian Electric Company, Inc.
P. O. Box 2750
Honolulu, Hawaii 96840

Copies of such correspondence and communications should be sent to:

Rod S. Aoki, Esq.
Alcantar & Kahl LLP
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III.

PV HOST PILOT PROGRAM OBJECTIVES AND REGULATORY CONTEXT

1. Objectives

By this Application, the Companies respectfully request approval for their respective PV Host Pilot Programs, pursuant to which they propose to develop a variety of PV systems on eligible utility customer-owned sites as a regulated utility service. The proposed Programs are intended to (1) facilitate the implementation of larger PV systems in a way that benefits all of the

Companies' respective customers, specifically by creating economies of scale with expected stabilized-energy cost reduction benefits through an aggregation process whereby multiple facilities and associated PV system sites will be combined together for bidding purposes, (2) provide the Companies with the opportunity to gain experience with a variety of PV technologies and applications, (3) provide a testing platform for the collection of PV system data and the associated exploration of grid integration strategies, (4) simplify the process of acquiring PV systems for customers who value the utility's ability to appropriately manage these power system and associated energy agreement procurement processes, (5) expand the mechanisms available to customers interested in adopting this technology, (6) expand the utilities' interactions with the Hawaii PV industry in a way that will increase the industry's opportunities for additional business, leading to the development of collaborative relationships that will ultimately help in collectively addressing potential policy and technical issues that may arise as PV technology becomes further employed on the grid, and, (7) expand the quantity, quality, and scale of renewable resources added to the utility systems and as such, contribute to the Companies' and the State's objectives to reduce dependency on imported fuel oil and to pursue more environmentally friendly means of meeting the State's growing energy needs. In addition, this Program could complement and serve the same objectives of the proposed Net Energy Metering ("NEM") Pilot Program (see Decision and Order No. 24089 filed March 13, 2008, in Docket No. 2006-0084). This Program could also provide valuable information to be considered in the development of a feed-in tariff for PV projects of similar sizes.

The Program is discussed in further detail in Part IV.

2. Hawaii Clean Energy Initiative ("HCEI")

On January 28, 2008, the State of Hawaii and the U.S. Department of Energy signed a memorandum of understanding ("MOU") establishing the HCEI, which provided in part:

> It is estimated that Hawaii can potentially meet between 60 and 70 percent of its future energy needs from clean, renewable energy sources. However, achieving this level market of penetration will require substantive transformation of the financial, regulatory, legal, and institutional systems that govern energy planning and delivery within the State.

As a result of the MOU, the state created working groups to address, among other things: (1) the use of renewable energy at remote locations; (2) transmission and distribution improvements, grid management improvements, and energy storage to ensure that the existing and future infrastructure facilitates optimal use of renewable energy resources and readily adapts to and incorporates new developments in system planning and transmission technologies while maintaining system reliability; (3) the development of innovative public and private financing vehicles for alternative energy sources and clean energy technologies at the state and county levels; and (4) design and enactment of comprehensive regulatory mechanisms that provide appropriate incentives for all stakeholders in the energy supply chain to proactively transition to a renewable energy-based future.

On October 20, 2008, the Governor of the State of Hawaii, the Department of Business, Economic Development and Tourism, the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs, and the Hawaiian Electric Companies executed the HCEI Agreement, which documents a course of action to make Hawaii more energy independent, and recognizes the need to maintain the Hawaiian Electric Companies' financial health in order to achieve that objective.

A product of the HCEI, the HCEI Agreement is a commitment on the part of the State

and the Companies to accelerate the addition of new, clean resources on all islands in the Companies' service area; to transition the Companies away from a model that encourages increased electricity usage; and to provide measures to assist consumers in reducing their electricity bills. (See HCEI Agreement at 1-2.)

The PV Host Pilot Program is proposed as a pilot to evaluate customer and PV industry receptiveness to a utility sponsored option to facilitate the integration of larger PV systems. The proposed Program is a reasonable step in the State's movement towards renewable energy and self-sufficiency. The proposed Program is specifically included in the HCEI Agreement as one of the options to facilitate the development of PV energy:

> 8. In order to provide customers a third option, the Hawaiian Electric Companies shall facilitate the development of photovoltaic (PV) energy by submitting an application to the PUC for a "PV Host Program" by March 31, 2009 of this agreement being signed (sic.). This PV Host program will consist of the following elements:
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> - Contracting to use a customer site, both commercial and residential, for the installation of a PV system. The site owner may be a part owner of the system. As consideration for providing a PV generation site, the site owner may receive a site rental payment and/or use a portion of the PV energy generated at their site.
>
> - The Hawaiian Electric Companies will competitively procure the installation of the systems, which can be owned by a third party and/or the utility.
>
> - In the case of third party owned systems, the utility may purchase PV energy at a standard rate. That rate shall not be linked to avoided cost and is intended to provide long-term stable pricing. The initial rate shall be set based on a competitive solicitation done by the utility before the submission of the PV Host program application. The standard rate may be changed, subject to PUC approval, based on changes in tax laws and rebates, changes in PV system costs, and other developments in PV services.
>
> - The Hawaiian Electric Companies may purchase the PV system and add the system cost to the utility's rate base, as long as the cost of the system is at or below the level established by the PUC.
>
> - The Hawaiian Electric Companies shall structure the program to acquire PV energy as efficiently as possible, with priority given to sites, which accommodate large amounts of PV. Attributes of these sites as well as relevant information from known candidate sites will be identified in the program design and in the PV Host program application that will be filed with the PUC.

- Should federal legislation be altered so that the utilities may claim tax credits, the value of such tax credits shall be passed through to ratepayers in the form of lower rate based asset costs or other mechanism.

- In these PV Host installations, the Hawaiian Electric Companies are responsible for integrating the energy into the utility's system.

- Such PV Host systems can be targeted toward customers, such as the Department of Education facilities and other State buildings and properties.

9. Once the program is approved by the Commission, the cost of acquiring PV energy, including but not limited to site rental payments, site improvements, interconnection, purchased energy, and PV Host program administration shall be paid for by all ratepayers. The estimated program costs and cost recovery mechanism will be provided in the program design and application that will be filed for Commission approval.

(See HCEI Agreement Section 4, "The Solar Opportunity", and Exhibit B.)

The proposed Program is substantially consistent with the HCEI Agreement, with the exceptions that (1) requests for proposals to establish the initial Program energy payment rates will be issued upon approval of the Program and identification of participating Host sites, (2) the Host customers will receive a site lease payment only, and will not have the option to purchase the PV energy generated, and (3) the Program will rely solely on non-utility owned PV systems. In addition, this pilot program will focus on the government sector and to a lesser extent, the commercial sector, as the PV system sizes proposed for the Program are not applicable to residential and small commercial applications.

3. Function of Program Relative to Other PV Development Mechanisms

There are currently a number of program or policy mechanisms that provide for or support the adoption of PV technology in Hawaii, many of which directly involve the utility from a programmatic standpoint and all involving the utility from an interconnection perspective (i.e. except off-grid applications). These mechanisms include the availability of state and federal tax credits and accelerated depreciation allowance for PV system owners, the competitive

bidding framework by utilities, as-available energy sales agreements with utilities, the Net Energy Metering option through the utilities, the availability of standard interconnection agreements, and independent customer adoption of a PV system either through some form of direct ownership or through power purchase agreements with the owners of the PV systems. In addition, there are new initiatives that are being considered to enhance the prospects for the wider adoption and easier procurement and application of PV technology in Hawaii, including feed-in tariffs, PV rebates, as well as the PV Host Pilot Program.

The PV Host Pilot Program was conceptualized to not only provide another complementary mechanism to support the wider adoption of PV technology in Hawaii, but also to fill a niche through a unique program approach which adds value that is not provided by other available mechanisms. Some of this added and unique value which the Companies believe holds great potential to increase the amount of renewable PV energy use in Hawaii includes:

- The PV Host Pilot Program greatly simplifies and minimizes the Host customer's effort to benefit from a PV system at their facility. The Program uses the utilities' resources in PV system specification, procurement, power purchase arrangements, and system development oversight - essentially serving as the customer's single point of contact in the acquisition and use of this technology. This simplification has been acknowledged as an extremely attractive feature of the Program by customers who have been asked to comment on the proposed program approach.
- Through the PV Host Program, multiple systems will be aggregated together in the proposed power purchase agreement ("PPA") bidding process that will permit the larger-scale and more rapid adoption of PV in Hawaii and should also result in economies of scale relating to the cost of the energy from these PV systems. The implications of these

Program attributes are that more renewable energy will be added to the utility systems more efficiently and at lower cost to utility ratepayers than through single system procurement methods.

- With regard to potential benefits to be realized by the Hawaii PV industry, the PV Host Pilot Program will also offer unique differences from existing approaches. The Companies will work with the PV industry to supply, install, and to have the PV Developers own these systems. The utility will perform much of the upfront work identifying PV sites and addressing Host customer needs and concerns. The Companies, via the competitive procurement process described in Section VII, will award multiple Host sites to the PV developers selected, providing the selected PV developers with administrative efficiency benefits. Finally, the selected PV developers will benefit from lower financing risk associated with selling energy via long-term agreements to a utility versus individual customers.
- Also, as a result of direct utility involvement in the process of specifying and determining locations for the PV systems in the PV Host Pilot Program, the utility will gain more direct experience with the variety of PV technologies as well as any related system integration mitigation strategies. This program will serve as a valuable testing platform for the Companies by providing the utility control over PV system specification, system locating, PV system data collection and related system integration analyses that can ultimately lead to greater utility system benefits and the potential development of more refined or improved integration strategies for application to the broader PV market.
- In contrast to programs in which the PV systems are being sized to only address the loads of the customer facilities where they are located or the customer's ability to utilize tax

credits, the PV Host Pilot Program will optimize site coverage with PV and thus maximize the use of these sites. This is particularly relevant in connection with facilities that may have very large roof areas and relatively small loads, such as a warehouse without air conditioning.

- Through the use of a standardized site lease payment rate, it will be very easy for a participating Host customer to understand the economic value they will receive from year to year. This is in contrast to their owning a PV system or agreeing to purchase energy from a PV system, in which their savings from year to year are variable and dependent upon the relationship between their utility tariff energy rate and their contracted cost of PV energy.

The addition of the PV Host Pilot Program to the available options for the procurement and installation of PV systems in Hawaii does not affect the viability or attractiveness of any existing program options, but rather provides an additional complementary mechanism. This Program provides its own unique attributes for those interested in promoting or utilizing PV technology in Hawaii. The Companies believe that the availability of more customer choices will lead to more rapid and more wide-scale use of PV technology in Hawaii.

4. Relationship of Program to the proposed Feed-In Tariff

By its Order Initiating Investigation issued October 24, 2008, the Commission opened Docket No. 2008-0273 to investigate the implementation of feed-in tariffs in Hawaii. A feed-in tariff ("FIT"), through the use of standard form contracts and set energy pricing, is intended to provide an expedited and efficient means for new renewable energy to be developed and contracted to sell energy to the electric utility. On December 23, 2008, pursuant to a January 20, 2009 Commission Order, the HECO Companies and the Consumer Advocate filed a joint FIT

proposal for a number of renewable technologies including PV.

It is the position of the HECO Companies and the Consumer Advocate that FIT energy payment rates be set based on the cost of generation plus a reasonable profit for the developers. In addition, the HECO Companies and Consumer Advocate intend for the proposed FIT to apply to projects that are reasonably predictable in terms of cost, performance, interconnection, and project development. Such predictability allows establishment of an "all-in" FIT energy payment rate and standardized contracting. This approach favors smaller projects as their costs are more easily quantified than larger projects, particularly with regard to interconnection. As such, the HECO Companies and Consumer Advocate propose that an initial FIT be established in Hawaii for PV projects up to and including 500 kW in size on Oahu, 250 kW in size on Maui and the Big Island, and 100 kW on Lanai and Molokai.

The HECO Companies and Consumer Advocate also propose that the initial FIT be reviewed on a regular basis, with consideration given to expanding FIT eligibility to larger projects and additional technologies. Per the joint HECO/Consumer Advocate proposal, the first FIT update would occur two years after initial FIT implementation. Other parties to the FIT Docket advocate FIT eligibility for larger projects of several megawatts.

The HECO Companies acknowledge that it may be possible to develop a FIT for larger projects, provided, however, that (1) adequate and relevant Hawaii project cost information is available to support establishment of just and reasonable energy payment rates, and (2) the projects be subject to a stand-alone interconnection and system integration review process. With larger projects, the cost of generation not including interconnection may be lower than smaller projects due to economies of scale. However, such economies of scale may be offset by higher costs of interconnection. In any case, due to the higher capital expense and greater amounts of

energy that would be produced by larger systems, it is particularly important to get the FIT pricing right in order to protect both ratepayer and developer interests.

The HECO Companies believe that it is prudent to develop further power purchase experience with larger PV systems – preferably based on competitive procurement processes – and to then apply such experience to the development of a FIT for larger projects. The HECO Companies believe the proposed PV Host Program – developing numerous PV projects larger than the proposed initial FIT through a competitive procurement process – will serve this need and can support the establishment of a FIT for larger PV projects in the first FIT update, two years after initial FIT implementation. If such a FIT is established for PV projects of the same size as that targeted in the PV Host program, the HECO Companies, in their review of the PV Host program towards the end of the two year pilot, would consider whether it is necessary to continue the PV Host program beyond the pilot.

IV.

PV HOST PILOT PROGRAM OVERVIEW

1. Program Structure

Under the PV Host Pilot Program, the Companies would lease eligible sites from customers ("Hosts") at a standardized, pre-established payment rate. Hosts will be required to execute a standard form Site Lease Agreement, setting forth the customer's site lease payment rate and other terms and conditions governing the Companies' use of the Host site. The selection and eligibility of sites to participate in the Program are more fully described in Section VI of this Application.

At the beginning of each year of the Program, the Companies would conduct a competitive solicitation to contract third-party PV developers to build, own, operate, and

maintain PV systems on the sites, and would purchase the full energy output of the PV systems pursuant to the terms and conditions of a standardized PV Host Pilot Program SEPA. A suitable inventory of Host sites will be established prior to each competitive solicitation in order to allow bidders to consider site specific factors and to provide economies of scale in their pricing proposals if multiple sites are awarded. The selection of Host sites is described in more detail in Section VI of this Application. The selection of PV developers is more fully described in Section VII of this Application.

2. Scope of Program

HECO will target third-party installation of 4 MW of PV in each year of the 2-year Program period. Eligible PV systems for the HECO Program will range from 500 kW to 1 MW in size, meaning four to eight PV systems will be accommodated in each year of the HECO Program. MECO and HELCO will each target third-party installation of 2 MW of PV in each year of the 2-year Program period. Eligible PV systems for the MECO and HELCO Programs will range from 250 kW to 500 kW, also corresponding to four to eight PV systems under each Program. MECO's Program will seek development of PV systems only on the island of Maui.

Roof-mounted crystalline PV systems are anticipated to be the predominant type of PV system to be acquired under the Program due to the technological maturity of such systems and their already widespread use in the Hawaii market. However, since an objective of the Program is to provide the Companies experience with a variety of PV technologies and applications, each Company's Program will also support the development of other types of systems, such as thin-film PV, and PV systems deployed on the ground or on parking shade structures.

3. Technologies and Eligible Systems

PV systems convert energy from sunlight directly into electrical energy. PV system

components typically include (1) PV cells packaged into modules, with multiple modules forming PV arrays, (2) inverters to convert the direct current ("DC") electricity produced by the PV modules into alternating current ("AC") electricity, (3) PV panel racking and mounting structures and hardware, and (4) system wiring and conduit. Battery energy storage systems may be used to store PV energy for nighttime or emergency use, or to smooth the variability of PV power output caused by localized cloud-cover or other site conditions. For grid-connected PV systems, interconnection facilities are also required for safety, system protection, and reliability purposes.

PV arrays can be fixed in place, or installed on movable mechanized mounting systems that can track with the movement of the sun to increase electricity production. PV systems can be roof-mounted, ground-mounted, or integrated directly into building materials such as roofing shingles.

PV cells convert light energy into electricity through the use of semi-conductor materials. Crystalline PV technologies employ a type of crystalline silicon, either mono-crystalline or poly-crystalline, in the manufacture of the PV cells that are used in PV modules. This type of PV technology is the most common type in use today, representing approximately 90% of the PV product on the market, and is characterized as having relatively high efficiencies and long-term demonstrated field performance.

However, given the relatively large amount of silicon required for crystalline PV technologies and the corresponding high cost of manufacturing such PV cells, there has been much effort to develop thin-film PV technologies which use less semiconductor materials and non-silicon materials, plus providing more options for installation. Amorphous silicon PV is the most mature thin-film technology, with cadmium telluride, copper indium gallium selenide and

copper indium diselenide now being commercialized. The tradeoff with potentially lower costs of thin-film PV cells is that their electrical energy production efficiencies are lower than crystalline PV cells, and thus for similar capacity PV systems, thin-film technologies would require a greater area for installation and higher expenses for racking materials, product shipping, and installation labor. Commercially available thin-film PV efficiencies have typically been less than 10%, compared to typical commercially available crystalline PV modules whose efficiency ranges from 12% to 19% (average 14% for poly-crystalline, 17% for mono-crystalline).[3]

Crystalline and thin-film roof-mounted and ground-mounted solar PV technologies are the only eligible technologies for the proposed Program. Other solar power systems including concentrating solar power and solar water heating systems are not included in the PV Host Pilot Program. Only new PV systems (i.e., not existing PV systems or expansions of existing PV systems) will be eligible for inclusion in the proposed Program in order to ensure that the Program achieves the objective of increasing the amount of PV in the Companies' service territories.

4. Contracting

The Companies request that the Commission approve the standard form SEPA filed with this Application, thus establishing the terms and conditions governing the purchase of PV energy by the utility. The SEPA will also contain site use terms and conditions, establishing the obligations of the PV Developers relative to the use of the Host's site. The individual SEPAs, along with a PV system notice transmittal, will be filed with the Commission in accordance with

[3] National Renewable Energy Laboratory Thin-Film Partnership Program website, www.nrel.gov/pv/thin-film/.

the file and suspend provisions of 269-16(b) of the Hawaii Revised Statutes ("HRS"), and will be kept open for public inspection (except that information deemed to be confidential and proprietary will be deleted and filed pursuant to a Protective Order issued by the Commission). This will provide an opportunity for the Commission and the Consumer Advocate to review individual SEPAs (and the confidential and proprietary information, which would be filed under Protective Order), before the individual SEPAs become effective. Key provisions of the SEPA, including the "file and suspend" provisions, are discussed in further detail in Part VIII.

5. Data Acquisition Component of the Program

High penetration of distributed PV projects on a distribution feeder will likely require grid integration solutions to manage power exchange and maintain power quality. This is due to the potential for two-way power flow and unintended islanding situations (during grid faults). High PV penetration is already being experienced on certain distribution circuits on the Big Island.

Another operational issue not clearly understood is the short timescale variability of PV system output caused by passing cloud conditions and the impact this has on the stability of the distribution circuit. Rapid changes in solar irradiance caused by cloud transients can lead to rapid PV power output changes and cause corresponding voltage changes on the utility feeder where the PV system is located. These rapid changes on distribution circuits with significant penetration of PV may occur on a timescale that is faster than the ability of the grid to compensate, therefore degrading the power quality on that circuit.

The assessment and quantification of the impacts of short timescale solar variability on distribution circuit power quality and grid system stability is currently inhibited by the lack of short timescales PV and solar performance data. A comprehensive field data acquisition

program to collect short timescale PV and weather data at various sites on the islands of Hawaii, Maui, and Oahu will yield a useful database to aid the utilities, solar industry, and customers in better understanding the impacts of variable PV generation.

The use of potential PV sites under the PV Host Program provides a unique opportunity for the Companies to collect short timescale data from geographically diverse sites that capture sub-minute, intraday, and seasonal variability. The sites at which high-frequency data acquisition systems ("HFDAS") will be deployed will be selected to optimize the use of existing and planned PV installations and relevance to utility studies and operations. Data collection also provides an opportunity to collaborate with external entities in research, community outreach, and educational programs.

It is envisioned that the HFDAS will measure solar irradiance, PV output, and select weather data at PV Host sites during the two-year pilot period. Data collection may be extended beyond the pilot program period if deemed useful. Data will be sampled and logged every second, averaged and logged every fifteen minutes or shorter, and stored on-site with enough storage that will allow approximately one to two months of storage. The ability to remotely download data via the Internet will be evaluated, and if feasible, incorporated into HFDAS design.

Outside services may be secured for the design, installation, and maintenance of HFDAS as well as data collection.

6. Program Implementation Steps and Schedule

The following implementation milestones and schedule are anticipated assuming, for illustrative purposes only, Commission approval of the proposed Program at the end of 2009, establishing the two-year program period from 2010-2011:

- Filing of Program Application — April 30, 2009
- Review of 2010 Host Sites — May – December, 2009
- Commission Approval — December 31, 2009
- Issue RFP — February, 2010
- Receive PV Proposals — March, 2010
- Award PV Contracts . — April, 2010
- Execute PV Contracts — May, 2010
- Complete Interconnection Reviews — 3Q 2010
- 2010 PV System Installations — 3Q – 4Q, 2010
- Review of 2011 Host Sites — 3Q – 4Q, 2010
- Issue RFP — January, 2011
- Receive PV Proposals — February, 2011
- Award PV Contracts — March, 2011
- Execute PV Contracts — April, 2011
- Complete Interconnection Reviews — 3Q 2011
- 2011 PV System Installations — 3Q – 4Q, 2011
- Review of Pilot Program — 3Q – 4Q, 2011

Concurrent with the filing of the Program Application, the Companies will begin to engage with prospective Hosts under the condition that the prospective Hosts are clearly aware that the Program has not been approved by the Commission, and that the utility cannot provide any assurances that such approval will be granted. Through the remainder of 2009, the

Companies, working with qualified outside contractors and engineering consultants, will inspect and qualify potential sites, identify on a preliminary basis the size of the PV system capable of being developed at each site, and consider preliminary interconnection requirements. This information will be included in the request for proposals to be issued following Commission approval of the Program, to provide bidders as much information as possible. In addition, the preliminary interconnection information will allow more efficient interconnection reviews should the Program be approved and project contracts awarded.

7. Program Reporting

Given the level of capital expenditures that accompany the Program's individual PV systems and the key role that the Program will play in meeting the Companies' renewable energy requirements, timely information needs to be provided to the Commission in order for it to track the progress and effectiveness of the Companies' PV Host Pilot Program. The Companies propose to file an annual status report by February 28 of the year following each year of the PV Host Pilot Program that will include the following information:[4]

a. Description of the individual PV systems installed during the program year, including system size, PV cell type, and type of mounting system.

b. Estimated versus actual purchased power costs. (The estimated costs will be the amount stated in the individual PV system notice transmittal.)

c. Estimated versus actual utility interconnection and infrastructure capital costs for each year of program implementation.

d. Estimated versus actual kWh output of the individual PV systems installed during the

4 Certain vendor specific information may be deemed confidential and detrimental to the business activities of participating vendors; therefore, this information would be provided to the Commission and Consumer Advocate under a Protective Order.

program year. The estimated kWh output will be the amounts stated in the individual PV system notice transmittal.

V.

PROGRAM JUSTIFICATION

The Companies' proposed Program is justified by (1) the effective furtherance of the State's energy policy objectives to reduce the consumption of imported oil, (2) the related environmental benefits associated with the reduced fuel consumption, (3) the potential economic benefits associated with stable PV energy production costs that are not linked to volatile fuel oil prices, and (4) expansion of options available to the State's energy consumers, while providing "customer choice" in acquiring large PV systems.

Key benefits to be provided to the utilities are to increase their renewable energy portfolio and allow for more active utility monitoring and control over the interconnection and integration of large PV systems with the utilities' grids. Key benefits to the Host customers are (1) the utility takes responsibility for the acquisition of the PV systems and managing their operational oversight through the contractual provisions within the SEPA, and (2) the Hosts receive a monthly site lease income stream. Benefits to the PV developers are the widened implementation of large-scale PV systems in Hawaii, the ability to leverage the utility's Program resources, and the development of information to support a possible feed-in tariff for larger PV systems.

The Companies' position regarding the benefits and value of PV systems has evolved over time as the PV market and technology have developed. Until recently, the cost of PV systems was too high to make the implementation of a broad based utility PV program economically feasible. As the cost-effectiveness, efficiency, and operating characteristics of PV

systems have improved, the viability of such a program has increased. At this time, there are a number of benefits to active utility facilitation through the proposed Program. Please refer to the bullet points within Section III. 3., "Function of Program Relative to Other PV Development Mechanisms", for a listing of some of the program's significant inherent value and benefits.

1. Customer Interest

Since the announcement of the HCEI Agreement between the Companies and the State in October 2008 and the introduction of the PV Host Program concept, a number of customers, mostly governmental entities, have requested presentations from the Companies regarding the conceptual Program approach. Most of these customers have been actively evaluating PV systems for their facilities, however many expressed reluctance to pursue these options due to their unfamiliarity with the technology and the associated processes of system acquisition and operation, as well as the added human resource requirements envisioned to be required to take on these new functions within their organizations. These customers want to focus on their core missions and let the utility be the energy company. As such, a key factor in the favorable response of these customers to the Program concept has been their desire to simplify their role in the acquisition, oversight, and operation of PV systems by having the utility assume the variety of responsibilities associated with the energy system's specification, project bidding, contract negotiation, interconnection agreements, management of system operations and maintenance through the contractual provisions within the SEPA, and general long-term project oversight. Their perspective is that these are the core business activities of the utility company and they would be comfortable with having a long-standing entity such as the electric utility manage these system procurement and long-term system operation functions for them, provided they also receive some form of added value through the addition of these systems to their facilities.

In addition to environmental stewardship, all of the customers are focused on reducing operating costs, and they want to do it with a minimal amount of investment and risk on their part. The majority of customers have responded very favorably to the simplicity of the PV Host approach proposed by the Companies. If the customer can meet the eligibility requirements to be a Host, the customer needs merely to make available a viable site for the system by signing the site lease agreement. In return, they receive a site lease payment that is a predictable long-term annual value that is based on the kWp capacity of the PV system, without having to invest their own capital or be concerned about the variable cost differential between a PV system's contracted energy rate and the current utility energy rate.

In summary, there is broad-based customer interest in and support for the Program among those customers engaged in examining the program concept. The Companies firmly believe that it is in the public interest to promote cost-effective PV system installations, and that the proposed Program will be beneficial in promoting these objectives, especially to the degree that government sites are used.

2. Rationale for Beginning with a Pilot Program

The Program is proposed as a limited two-year pilot, recognizing that in several areas, the program concepts will be tested and considered for revision as applicable and dictated by experience. In addition, there may be new program concepts or modifications that are brought to light during the pilot which may provide refinements to or alternative approaches to be integrated into the program if it evolves to a full-scale long term program. As a pilot, the HECO Companies also are provided flexibility to judge the PV Host Program against other potential PV contracting programs that may be developed in the future, such as the feed-in tariff discussed earlier.

Some of the possible pilot program areas to be examined and considered for refinement that may improve program effectiveness within a possible full-scale program include:

- Examine overall cost-effectiveness of the program in acquiring PV resources for the grid.
- Examine any PPA contracting issues that arise for consideration of adjustment of PPA terms and conditions.
- Examine any Host site leasing issues that arise for consideration of adjustment of leasing terms and conditions.
- Consider any procurement issues that may arise with respect to governmental facility participation.
- Confirm the reasonableness and efficacy of the administrative resource requirements and associated expenses.
- Confirm the reasonableness and requirements for the proposed system integration strategies and their associated expenses.
- Consider the basis and impact for possible adjustments of the PPA and Host lease agreement 20 year terms.
- Consider the effectiveness of and possible expansion to the data monitoring program based on a developing understanding of the variety of benefits and value to be provided by this effort to the Companies and others.
- Consider the experience and assessment of the various PV technologies and applications of these technologies leading to recommendations for their use or other possible technologies' use within a full-scale program.

- Evaluate the possibility of the development of a tariff that would permit the Host customer to purchase some of the PV energy at a stabilized energy rate, which may decrease Host leasing costs and overall program costs.

VI.

HOST SITE SELECTION

Consistent with the HCEI Agreement, the PV Host Pilot Program initially focuses on sites capable of supporting larger PV systems. In the proposed Program, the Companies will look to site owners to provide an inventory of appropriate locations. This process should more efficiently select appropriate locations and reduce the time from identification of eligible sites to PV system installation by limiting the number of simultaneous lease negotiations.

The primary focus of the Program will be to target governmental facilities, including County, State, and Federal sites. This is because these customers typically have multiple sites that could be eligible to participate in the Program. In addition, since the Companies may more easily engage with these governmental entities given the Companies' status as regulated electrical service providers and their ability to offer services via tariffs, there is likely to be a higher value provided to these customers and the PV industry by the Companies' facilitation. In accordance with the HCEI Agreement, the Companies may also engage with non-governmental institutions but would do so to a limited degree. The Program will not involve residential sites, nor will the majority of commercial sites be suitable, due to the large area required for PV systems of the targeted sizes.

Identification of Host sites is the first critical step in implementing the Program. By identifying actual Host sites prior to competitive solicitation of PV systems, the PV developers

will be able to submit bids knowing that the sites have already been qualified on the basis of owner interest, minimum area, structural integrity, feasibility of interconnection, and other criteria described in more detail below. The Companies plan to engage with prospective Hosts beginning in the second quarter of 2009 to begin the site evaluation and qualification process, in anticipation of Commission approval of the proposed Program. However, until and unless Commission approval of the Program is received, such engagement and all communications by the Companies with potential Hosts and PV developers will be done on a strictly conditional basis.

In order for sites to be eligible for the Program, they must meet the following minimum criteria:

- Sufficient and suitable area to support installation of PV systems meeting the Program minimum installed capacity, including PV modules, inverters, interconnection equipment, and other required hardware.
- No pre-existing environmental contamination.
- No or minimal shading risk (current or future) on the area to be used by PV.
- Rooftop sites must meet structural integrity requirements and be in compliance with building codes, and construction drawings must be readily available to allow the Companies or their consultants to verify such.
- Expected life of the roof and facility exceed the 20 year term of the lease agreement and SEPA.
- Reasonable assurances that the Host facility will not change ownership over the

20 year agreement term or that the Host is willing to accept leasing terms that prescribe transferability of the lease to a new facility owner.

- Feasible for interconnection at reasonable cost, taking into consideration the PV site's size and impact on the system.
- Located within an area identified in the Company's Locational Value Map, if available, as desirable for placement of renewable generation.
- No pre-existing agreements to develop PV using the same area, although a PV Host system could be installed next to a separate PV system.

Considering that the objectives of the proposed NEM Pilot Program could also potentially be met by this Program, another site selection criteria could be:

- Consider the individual sizes and collective total capacity of PV systems on a single distribution circuit.

Procedurally, the Companies will each develop a list of qualified Host sites to support each competitive solicitation.

VII.

COMPETITIVE SOLICITATION OF PV SYSTEMS

A competitive solicitation will be offered for each Company's Program following Commission approval. More than one developer for each of the Companies' PV systems may be selected due to the number and variety of PV installations sought for the Program, and the desire of the Companies to provide developers suitable opportunities to participate. In addition, the experience to be gained by the Companies in the evaluation of best practices associated with PV contracting and the provision of PV systems is also an objective of the pilot program that can be

met by working with multiple developers. With this objective in mind, as well as the objective of achieving favorable energy pricing, the Companies anticipate awarding multiple projects to an individual developer to benefit from economies of scale, yet at the same time including multiple developers in the program.

With respect to the energy prices to be paid in the Program, the Companies anticipate receiving attractive pricing as a result of using a competitive solicitation process and the economies of scale provided by aggregating multiple projects together. The Companies are mindful of the objective to procure renewable energy at just and reasonable rates, and the use of competitive procurement will provide the basis for establishing such rates,[5] The Companies note that such information would be especially useful when considering the development of a feed-in tariff for PV projects of the size range targeted by the Program.

VIII.

KEY PROVISIONS OF THE SEPA

1. The Solar Energy Purchase Agreement

The template and basis used for the development of the Solar Energy Purchase Agreement (SEPA) for the proposed Program is the Solar Energy Purchase Agreement that was developed by HECO for its recent Archer Substation PV project. This agreement specified the terms and conditions between the Company and the PV developer "Seller" relating to the provision, operation, and sale of energy from that PV system, in addition to other related

[5] At the time this Application was prepared and filed, the provisions of Hawaii Revised Statutes ("HRS") Section 269-27.2(c) apply to the rate paid by a public utility to a producer of nonfossil fuel generated electricity and would cap that rate at one hundred percent of the cost avoided by the utility when the utility purchases the electrical energy rather than producing the electrical energy. House Bill 1270, H.D. 1, S.D. 2 (Twenty-Fifth Legislature, 2009, State of Hawaii) amends H.R.S. Section 269-27.2(c) in relevant part by removing this avoided cost cap. The Bill was passed by the Legislature and transmitted it to the Governor on April 21, 2009.

contractual terms. Having been approved by the Commission (see Decision and Order No. 24225, filed May 13, 2008, in Docket No. 2007-0425), this Archer Substation SEPA presented the Company a reasonable starting point for the development of a standardized form SEPA that would be applicable to the PV Host Pilot Program.

Most of the terms and conditions within the existing SEPA remain in this new version for the Program, with key modifications to areas involving insurance provisions, as applicable to the use of Host customer facilities, as well as details regarding the implementation and payment for system interconnection costs.

2. Key Provisions within the SEPA

Some of the key provisions within the SEPA include the following:

a. Project Description

This section outlines the details about the project(s) to which this SEPA applies. (See Exhibit A, Section 1.)

b. PUC Approval

This section addresses when the agreement becomes effective. (See Exhibit A, Section 5.)

c. Purchase of Energy: Billing and Payment

This section addresses the terms regarding how payment would be made to the PV developer and references Exhibit D of the SEPA that specifies the energy payment rate. (See Exhibit A, Section 6.)

d. Interconnection of Facilities:

This section addresses the need for the PV system to comply with the Rule 14 standards for interconnection and specifies the Companies' responsibilities with respect to the provision of

interconnection equipment. (See Exhibit A, Section 8.)

e. Term:

This section specifies the length of the contract term as well as options for its continuation beyond. (See Exhibit A, Section 7.)

f. Insurance:

This section identifies the various insurance provisions that will be required of the PV developer by the Company, including insurance requirements relating to the use of the Host facilities. (See Exhibit A, Section 16.)

Please refer to Exhibit A for the complete version of the Solar Energy Purchase Agreement for which the Companies are seeking Commission approval as the standard form agreement to be used for the various projects with PV developers within the PV Host Pilot Program.

3. Contract File and Suspend

a. Standard Form Contract

PV developers will be required to execute a standard form SEPA, the terms and conditions of which will be pre-approved by the Commission. The SEPA will be included with each individual PV system notice transmittal, filed with the Commission in accordance with the file and suspend provisions of 269-16(b) of the Hawaii Revised Statutes ("HRS"). This will provide an opportunity for the Commission to review the individual PV system notice transmittal and SEPA before the PV system is installed and the SEPA becomes effective.

b. File and suspend

The "file and suspend" provisions as applied to the proposed Program would operate as

follows:

- Following execution of a SEPA with a PV developer, the Company will file a thirty day file and suspend notice transmittal with the Commission for a PV system(s) specifying the developer, the size, type, and location of the PV system(s), the energy payment rate, and the effective date of the SEPA, together with the SEPA. The effective date of the SEPA must be at least thirty days after the filing of the thirty day file and suspend PV system notice transmittal. The thirty day file and suspend PV system notice transmittal will have attached to it a certificate of service showing service, at the time of filing, on the Consumer Advocate. The thirty day notice file and suspend PV system notice transmittal will be kept open for public inspection (except that information deemed to be confidential and proprietary will be deleted and filed pursuant to a Protective Order issued by the Commission).
- The effective date of the SEPA will be the first business day following the expiration of the notice period (of at least 30 days), unless the Commission issues an order suspending the effective date of the agreement within the notice period.
- If the Commission issues an order suspending the effective date of the SEPA, the SEPA will not be effective until the first day following the Commission's issuance of an order allowing the SEPA to take effect.
- If the Commission issues an order suspending the effective date of the SEPA, and the effective date of the SEPA is delayed by more than sixty days as a result of the suspension order, then either the PV developer or the Company

may terminate the SEPA by providing written notice of such termination prior to the effective date of the SEPA.

- If the Commission conditions its order allowing the SEPA to take effect upon the Company and the PV Developer agreeing to modifications to the SEPA, the Company and the customer must execute a conforming amendment to the SEPA with the required modifications within thirty days of the issuance of the order (unless such period is extended by mutual written agreement), and the SEPA will not be effective until the first day following execution and filing with the Commission of the conforming amendment; provided that if the PV developer or the Company elects not to execute such a conforming amendment within such thirty day period, as extended, then the SEPA is terminated.

The 30-day notice feature is necessary so that PV developers will have reasonable assurance as to when and whether Program PV system projects will proceed.

4. Other Terms and Conditions

a. Confidentiality

Information provided to the Company relating to the PV developer's business operation, and designated by the developer as being confidential, will be treated as confidential. The Companies may disclose such information to the Commission and the Consumer Advocate, subject to Commission issuance of a Protective Order. The electric rate payment provided to the PV Developer will not be considered to be confidential.

IX.

INTERCONNECTION AND SYSTEM INTEGRATION

Since the Program PV systems are being solicited by the Companies, and consistent with the provisions of the HCEI Agreement, the Companies will be responsible for interconnecting the Program PV systems to the electric utility grids in accordance with the interconnection standards in their tariffs. The PV developer will be responsible for all costs associated with any equipment that is situated on the PV system's side of the point of interconnection, as specified in the SEPA, and deemed necessary by the Company for the interconnection of the PV system to the grid. In addition, the costs of any line extension that may be required to connect the PV system to the grid will be the responsibility of the PV developer. The following interconnection and system integration process details are provided to illustrate the proposed process for the consideration of interconnection requirements including the general sequence of steps to be taken, the technical review process, and the need for additional technical study.

1. Sequence of Steps in the Determination of Interconnection Requirements

Step 1:

As Host PV sites are being compiled by the Companies for consideration of participation in the PV Host Pilot Program, an initial screening will be conducted by the Company to identify locations on the grid systems where the introduction of PV systems of this scale may be difficult and costly from a system integration perspective or where they may provide added grid value. Identifying those system locations that are viewed to require very expensive interconnection equipment at this stage will help the Companies narrow the selection of viable Host sites and will help to avoid unnecessarily costly projects.

Step 2:

Once specific project details become available after the selection of winning PV developer bids and execution of contracts, the Companies will perform a review of the information submitted by the PV developer in order to determine completeness of information to perform a technical review. An initial technical screening is performed and will determine whether additional technical study is required to complete the technical review.

Step 3:

If a technical study is required, it will be carried out at this stage. The details of the technical review process are discussed later in this section, including the potential need for additional study beyond the technical screening.

Step 4:

Based on the results of the technical review, the PV Developer and Company will work together to finalize the single-line diagram, relay list, trip scheme and settings, and any three-line diagram that may be required. The Facility Equipment List, identifying equipment, space and/or data at the facility, are to be provided by the Host customer for use in conjunction with the Company's Interconnection Facilities evaluation. The Company completes the identification of the interconnection facilities to be owned by the Company.

Step 5:

The Company and the PV developer will mutually agree in writing to a schedule by which the interconnection facilities will be constructed and when the Customer's generating facility shall be connected to the Company's electric system. The

interconnection facilities are project-specific, and the time to complete the facilities will depend on the complexity of the required interconnection facilities.

Step 6:

Based on the schedule developed in step 5, the Company will have the required interconnection equipment installed.

2. Technical Review Process

The degree of technical review required for a proposed PV Host system's interconnection, and the extent to which additional technical study will be needed, will depend on factors such as (1) complexity of the utility system that the generating facility is proposed to be interconnected to that must be modeled (i.e., the distribution system); (2) connection to a network system; (3) whether significant amounts of power will be exported; (4) feeder penetration greater than 15%; (5) starting voltage drop; (6) generating facility capacity; (7) short circuit contribution ratio greater than 5%; and (8) type of interface transformer. Following submission by the PV developer of all necessary information regarding the proposed generating facility, the Company will perform a technical screening of the impact of the generating facility on the Company's system. If the Company determines that additional technical study of the Host PV system interconnection is necessary, then the Company will develop a cost estimate and schedule to complete the required additional technical study. The Company may have the additional technical study performed by a qualified third-party consultant. The technical screening or additional technical study may identify the need for Company interconnection facilities required to facilitate interconnection of the generating facility. The Company will be responsible for the cost of any technical screening, additional technical study, and Company

interconnection facilities on the Company's side of the point of interconnection, with the exception of line extensions.

3. The Need for Additional Technical Study

The Company's engineering department, in its technical screening of the proposed Host PV system, will determine if additional technical study of the Host PV system interconnection is necessary. The Company may perform the analyses included in the additional technical study. The Company may contract the analyses or parts of the analyses to an outside consultant specializing in such analyses for complex situations, or in situations where the Company's engineering department does not have available resources to conduct the analyses in a reasonable time frame. The scope and cost of the analyses will depend on the complexity of the utility system that the generating facility is interconnected to which must be modeled, and the degree to which the generating facility will affect the utility system. Examples of the analyses and/or reviews that fall within the Additional Technical Study include: (1) Feeder Load Flow; (2) Dynamic Stability Analysis; (3) Transient Overvoltage; and (4) Short Circuit and Relay Coordination.

For program budgeting purposes, typical costs have been identified for the technical studies as well as for the application of Direct Transfer Trip ("DTT") and SCADA/curtailment communication capability for each of the PV systems. DTT is a likely type of system integration equipment to be employed on the MECO and HELCO grids and possibly on the Oahu grid that protects against the possibility of unintended islanding of the PV system. The costs for DTT were derived from recent experiences with similar PV system sizes being installed on these systems. Assumptions are also being made that for each of the PV systems, SCADA and curtailment communication capabilities will be provided. This infrastructure will provide the

capabilities for the individual grid operations dispatch centers to monitor the collective impact from these PV systems on the grid as well as to provide the capability for curtailment, should this function be required for any reason including low system loading conditions as well as facilitating system restoration efforts in the even of a system-wide grid outage.

X.

PROGRAM COSTS AND BUDGET

1. Program Costs

Program costs include (a) purchased power costs, (b) Host site lease payments, (c) utility interconnection and infrastructure capital costs, and (d) Program administration costs. For illustration purposes the estimated expenses for 2012 (a third year falling outside of the pilot program's two-year scope) associated with the Host site lease payments, purchased power payments, and the data gathering and monitoring activities are shown in subsequent budget numbers

a. Purchased Power Expenses

The Program will rely on third-party PV developers to build, own, operate, and maintain the PV systems. Each PV developer will enter into a standard form PV Host Pilot SEPA. The proposed purchased power expense program budget for each Company is as follows:

Annual PPA Expense in years:	2010	2011	2012
HECO:	$350,000	$1,750,000	$2,800,000
HELCO:	$175,000	$875,000	$1,400,000
MECO:	$175,000	$875,000	$1,400,000

The proposed purchased power expenses are based on the following assumptions:

- Energy payment rate of $0.25/kWh
- Estimated annual kWh production rate: 1,400 kWh/kW
- Annual installed capacity:, 4 MW (HECO); 2 MW (HELCO); 2MW (MECO)
- The dollar values presented in the table assume that the new increments of PV capacity in 2010 and 2011 are not in place until the beginning of the fourth quarter of those years, hence only one quarter of the expected annual kWh production for those systems occur in each of these years. In 2012, it is assumed that the full two-year program capacity of PV systems is in place for this entire year.

b. Host Site Lease Expenses

The assumed approach for paying a Host for the lease of a site is based on a $/kWp capacity rating of the PV system. Each Host customer would enter into a PV Host Lease Agreement with the Company that prescribes the terms and conditions for the lease as well as specifies the annual or monthly lease payment rate. The proposed Host site lease expense program budget for each Company is as follows:

Host Site Lease Expense in years:	2010	2011	2012
HECO:	$70,000	$350,000	$560,000
HELCO:	$35,000	$175,000	$280,000
MECO:	$35,000	$175,000	$280,000

The proposed Host Site Lease expenses are based on the following assumptions:

- An annual lease payment rate of $70.00 per kWp capacity of the PV system.
- Annual installed capacity: 4 MW (HECO); 2 MW (HELCO); 2 MW (MECO).
- The dollar values presented in the table assume that the new increments of PV capacity in 2010 and 2011 are not in place until the beginning of the fourth quarter of those years, hence only one quarter of the expected annual lease payments for those systems occur in each of these years. In 2012, it is assumed that the full two-year program capacity of PV systems is in place for this entire year.

c. Utility Interconnection and Infrastructure Capital Expenses

The utility interconnection and infrastructure expenses include costs associated with the possible requirement for an interconnection study, as well as the equipment costs for the interconnection hardware and its installation (all equipment from the point of PV system tie-in through the new kWh meter for PPA billing purposes to the point of tie-in with the utility service), which will all be on the utility side of the customer's revenue meter, and any required system integration equipment such as direct transfer trip ("DTT"), SCADA and curtailment control capabilities.

Interconnection and Infrastructure expense in years:	2010	2011
HECO:		
Interconnection study	$150,000	$150,000
Installed interconnection hardware	$150,000	$150,000
System integration equipment (e.g. DTT)	$300,000	$300,000
SCADA/curtailment equipment	$1,755,000	$1,755,000
SCADA monthly lease line	$3,600	$18,000
HELCO:		
Interconnection study	$150,000	$150,000
Installed interconnection hardware	$150,000	$150,000
System integration equipment (e.g. DTT)	$300,000	$300,000
SCADA/curtailment equipment	$750,000	$750,000
MECO:		
Interconnection study	$150,000	$150,000
Installed interconnection hardware	$150,000	$150,000
System integration equipment (e.g. DTT)	$300,000	$300,000
SCADA/curtailment equipment	$750,000	$750,000

The proposed utility interconnection and infrastructure expenses are based on the following assumptions:

- Each utility will install six systems per program year, based on the prescribed system sizes.
- The average cost of an interconnection study is $25,000 per system.
- The average cost of installed interconnection hardware is $25,000 per

system.

- The average cost of installed DTT system integration equipment is $50,000 per system.
- The average cost of installed SCADA/curtailment control equipment is $125,000 for each of the HELCO and MECO PV systems and $292,500 for each HECO PV system. In addition, for the HECO PV systems, a monthly $200 Hawaiian Tel lease line expense per system is also included.

The total estimated capital expenditures for all three utilities relating to the Program interconnection and infrastructure costs are $ 10,110,000. For 16 MW of PV systems within the Program, this interconnection and infrastructure cost total is equivalent to $ 0.63 per peak watt of PV installed. Based on typical PV system installed costs of $6.50 to $8.00 per peak watt, these interconnection and infrastructure costs represent less than 10% of a typical installed PV system cost.

d. Administrative Costs

Several cost types fit into the administrative cost category, including program development expenses, marketing, project site assessment support, internal program labor, and data gathering and monitoring.

Program Development Expenses

The program development expenses are primarily intended to support the development and approval of the PV Host Program application in 2009 and include system integration analysis, project site assessment support, program design, and regulatory filing support. The proposed costs of these activities and

their percentage allocation to each utility are identified in the following table.

Outside Service	Provider	Scope	Total	HECO– 80%	HELCO 10%	MECO 10%
Engineering	TBD	System Integration Analysis	$75,000	$60,000	$7,500	$7,500
Consulting	TBD	Project Site Assess Support	$25,000	$20,000	$2,500	$2,500
Consulting	TBD	Program Design	$75,000	$60,000	$7,500	$7,500
Legal	Alcantar & Kahl	Regulatory Filing Support	$25,000	$20,000	$2,500	$2,500
Total			$200,000	$160,000	$20,000	$20,000

Marketing

The program marketing expenses are anticipated to be relatively small given the annual limits on the program PV capacity and associated numbers of customers that may ultimately be involved in the two-year pilot program. It is anticipated that the primary marketing mechanism will be through the customer account representatives for each utility, supported by internal labor within HECO's Resource Acquisition Department, under which the program will be administered for all three utilities. Given this anticipated marketing approach, it is estimated that two-year program marketing expenses per Company will be no more than $15,000. Since the number of projects per year is anticipated to be similar for

each of the three Companies, these expenses would be allocated equally to each Company, meaning that each of the three Companies will have a total program marketing budget of $5,000 or $2,500 per year for each of the two program years.

Project Site Assessment Support

Project site assessment support involves the use of an outside consultant to assist in the review and characterization of acceptable Host sites that will be packaged into an RFP for PV developer bids. This consultant expense is only required in year 2010 as the RFP is prepared for issuance to secure the 2011 PV capacity additions. The work to review and characterize Host sites for the 2010 PV capacity additions occurs in the context of program development activities and has been included separately in that category. The overall expenditure anticipated for this project site assessment support in 2010 is $30,000. As there are approximately an equal number of PV projects per utility in each program year, this cost should be divided equally among the Companies, resulting in an expected cost per Company of $10,000 in 2010.

Internal Program Labor

The development and administration of the PV Host Pilot Program has been assigned to the Resource Acquisition Department at HECO. This department is responsible for assisting HECO, HELCO and MECO in the review, selection and negotiation for Host customer sites, the development of detailed PV system RFP's, the selection of and negotiation with project developers, management of PV project development and construction, and the commissioning of PV systems. In addition to the labor within the Resource Acquisition Department for

administering this program, it is anticipated that both HELCO and MECO will each need to designate one half-time staff person dedicated to the program to assist with the required activities, beginning in mid-2009. The anticipated annual labor and related overhead expense level for this one half-time staff person is approximately $ 30,000 in 2009 and $ 60,000 in each of 2010 and 2011. The anticipated annual labor and related overhead expense level for preliminary program work and overall program administration for the Companies by the Resource Acquisition Department is approximately $250,000 for the program years 2010 and 2011. For 2009, with the planned addition of one new full-time staff person in mid-year to support the one existing one full-time staff person on the program, the 2009 labor expenses are estimated at $156,250. As with the program development expenses, it is anticipated that these HECO labor charges will be shared in a similar proportion among Companies, meaning that 80% will be borne by HECO and 10% each by HELCO and MECO. An annual escalation factor of 3% is used for the 2010 and 2011 figures. The combination of these annual internal labor charges at the three Companies results in the following approximate distribution of labor expenses:

Internal Labor Charges by year:	2009	2010	2011
HECO:	$125,000	$206,000	$212,180
HELCO:	$45,625	$87,550	$90,177
MECO:	$45,625	$87,550	$90,177

Data Gathering and Monitoring

Data gathering and PV system monitoring will be conducted with each of the PV

system installations at Host sites to provide useful information about the potential grid impacts from distributed PV systems. This information can be used to help develop strategies to address grid integration issues. The use of Host sites provides an opportunity for HECO, HELCO, and MECO to collect PV output and solar resource data, including short timescale transients, from geographically diverse sites in Hawaii. Data collection also provides an opportunity for HECO, HELCO, and MECO to collaborate with external entities in research and educational programs related to PV, since the Companies will have ownership control over this data. A one-time cost for a central data server system and development of data acquisition and control systems is estimated to be $20,000 in 2010. The estimated cost of an installed data collection system, including monitoring equipment, data acquisition hardware, and deployment, is approximately $10,500 per system. Assuming approximately six PV systems per utility per year in the program, the total estimate capital expenditures for all three utilities relating to the Program data gathering and monitoring equipment amount is $398,000.

The total cost for this data collection and monitoring activity, including $10,000 per utility per year for contracted data management and analysis services and excluding the one-time development cost, is estimated to be $73,000 per utility per year (2010 and 2011). Continued monitoring and data collection in 2012 (to capture a years worth of data from systems installed in 2011) is estimated at $10,000 per utility.

Total Costs for Data Program in years:	2010	2011	2012
HECO:	$79,667	$73,000	$10,000
HELCO:	$79,667	$73,000	$10,000
MECO:	$79,667	$73,000	$10,000

2. Proposed Total Pilot Program Budget

The proposed total program budget for the pilot program from 2009 through the end of the Program in 2011 and including all anticipated PPA and Host Lease payments, and the data monitoring and collection in 2012 are presented below by Company and by year. These values represent the combined values of the amounts identified in the detailed program costs above.

Total Program Budget:	2009	2010	2011	2012
HECO:	$285,000	$3,076,767	$4,760,680	$3,370,000
HELCO:	$65,625	$1,739,717	$2,565,677	$1,690,000
MECO:	$65,625	$1,739,717	$2,565,677	$1,690,000
TOTAL:	$416,250	$6,556,201	$9,892,034	$6,750,000

3. Program Flexibility

Several areas of program flexibility are being requested of the Commission, in light of assumptions being made with respect to budgeted PPA energy payment rates, Host lease payment rates, and in acknowledgement of the Companies desire to have this pilot program be as effective as possible in securing the lowest possible stabilized energy rates, as well as the Companies intention to transition this pilot program into a full-scale program without undue interruption in activity.

PPA Energy Rate

The energy payment rate that will be provided to the Companies under a SEPA

with the participating PV developers is presently unknown, though for budgeting purposes an assumed value of $0.25 per kWh was used. The current challenges in Hawaii with respect to financiers' ability to utilize the 35% state tax credit on these projects underscores the uncertainty of this energy value today for a PV system provided under a PPA. In addition, one of the premises of the PV Host program is that through the Companies' aggregation of multiple sites within one RFP process -- versus multiple processes -- a more attractive energy rate may be available, as the acknowledged reduction in administrative requirements associated with a collective approach to contracting and project economies of scale would imply.

The Companies request flexibility to adjust the energy payment rate assumption within its program budget, as well as the actual budgeted value for purchased energy, based on actual bid energy values selected for the projects put out to bid.

Lease Payment Rate

The Host site lease payment rate that is identified in the assumptions within the proposed program budget is a proxy value and subject to modification as the PV Host program is further discussed with actual potential customers. It is the Companies' intention to standardize these lease payment rates through further discussions and negotiations with these customers prior to the anticipated Commission approval of the program at the end of 2009. The Companies request the flexibility to adjust the proposed program budget for Host lease payments once these negotiations are concluded and a final acceptable lease rate has been determined.

Program Expansion

The proposed 8 MW per year of collective PV capacity additions within this pilot

program were based on a generalized assumption that this scale of activity has the potential to not only increase the installed capacity of PV within Hawaii, but also to help lower its costs through RFP aggregation and economies of scale. As the Companies further discuss these opportunities with PV developers as the program proceeds, it may become apparent that a slightly larger program would yield more beneficial results in the form of lower energy rates. As such, the Companies request flexibility to increase the amount of collective annual PV capacity additions, should it be determined that additional pricing benefits would be available.

Evolution to Full-Scale Program

This pilot program is intended to be concluded at the end of 2011, at which time the full number of targeted PV systems will be installed and operating under contract. It is presently the Companies' intention to begin an evaluation and review of the program in the later half of 2011, enabling the filing of a full PV Host program application in early 2012 should it be desired, considering the results of the pilot and the status of other PV contracting mechanisms that may be offered or under consideration at that time. With an early 2012 filing date, the Companies hope to minimize interruptions in PV resource acquisitions during the period involving the transition to a full-scale program and the associated regulatory process. Based on the Companies review and evaluation of the pilot program at the end of 2011, if the Companies intend to file a full-scale PV Host program application, the Commission will be notified of this intent by the end of 2011. Should the program not be continued beyond the pilot program two year term, there will be no impact on the existing customers within the pilot program as the agreement terms

with these customers, as specified in the site lease agreements, will be contractually honored.

XI.

FINANCIAL COMPLIANCE

The SEPA Section 17 requires, among other things, that the PV developer provide information that the Companies' request for purposes of permitting the Companies and its parent company, Hawaiian Electric Industries, Inc. ("HEI") to comply with the requirements of: (a) Interpretation No. 46 of the FASB (Financial Accounting Standards Board), Consolidation of Variable Interest Entities, an interpretation of Accounting Research Board Bulletin ("ARB") No. 51 ("FIN 46R"), (b) Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX 404") and (c) all clarifications, interpretations and revisions of the regulations implementing FIN 46R and SOX 404 issued by the FASB, Securities and Exchange Commission ("SEC"), the Public Company Accounting Oversight Board, Emerging Issues Task Force or other governing agency. (Exhibit A, Section 17.)

Section 17 of the SEPA discusses the following requirements of PV Developers to provide information so that the Companies and HEI may meet their financial reporting requirements:

- Section 17 provides the Companies, HEI or its independent auditor (if required) access to PV Developer documents and records to meet the reporting requirements.
- The Companies and HEI shall not use the information requested from the PV Developers pursuant to Section 17 of the SEPA for any purpose other than as permitted under Section 17 of the SEPA.

- Provisions are also made to limit public disclosure, to the extent reasonably possible, in any filing that the Companies or HEI would be required to make with regard to financial disclosure. If the Companies or HEI become legally compelled to provide certain information, the Companies or HEI will undertake reasonable efforts to provide prompt notice to the PV Developers.

A. Consolidation Accounting

In December 2003, the FASB issued revised FIN 46R. FIN 46R addresses which entity, if any, must consolidate a "variable interest entity" ("VIE")[6]. FIN 46R could potentially require that the purchaser under a power purchase agreement (i.e. SEPA), such as the Companies, consolidate the seller, such as the PV Developers. If the SEPA was determined to constitute a variable interest in a PV Developer and one of the Companies is the primary beneficiary, then that company would be required to consolidate the PV Developer onto its financial statements. Consolidating a PV Developer onto its financial statements would have uncertain impacts on the assessments of investors and/or credit rating agencies on the risks associated with this SEPA and that Company's creditworthiness. In addition, if any of the Companies must consolidate a PV Developer in its financial statements, the Companies management must also assess the adequacy of its internal controls over financial reporting in order to comply with SOX 404.

A preliminary evaluation of the standard form SEPA was performed and, based on the information currently available to the Companies, it appears consolidation under FIN 46R would not be required. However, since this conclusion is based on an evaluation of an unexecuted standard form SEPA, this evaluation and conclusion are considered preliminary. The Companies

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[6] See "Summary of Interpretation No. 46 (revised December 2003)" filed in Docket No. 04-0113 HECO's 2005 test year rate case, HECO-2114.

will evaluate each SEPA between a third-party developer and one of the Companies upon contract execution. Therefore, the Companies may reach a different conclusion than that reached under the preliminary evaluation performed on the standard form SEPA and presented here for purposes of this Application. In addition, after executing a SEPA, the Companies will be required to monitor the status of the third- party developers and the SEPA for any significant changes and will revisit this evaluation thereafter when necessary. Specifically, the standard form SEPA provides that if there is a change in circumstances during the term of the Contract that would trigger consolidation of Seller's finances on to the Companies balance sheet, and such consolidation is not attributable to the Companies' fault, then the Parties will take all commercially reasonable steps, including modification of the Contract, to eliminate aspects of the arrangement that trigger consolidation, while preserving the economic "benefit of the bargain" to both Parties. (Exhibit A, SEPA Section 17)

B. Lease Accounting

In May 2003, the Emerging Issues Task Force ("EITF") of the FASB issued EITF Issue No. 01-8, entitled "Determining Whether an Arrangement Contains a Lease."[7] EITF 01-8 specified tests to be applied to an arrangement (in this case, the standard form SEPA) to determine whether or not the arrangement contains a lease and specified the circumstances under which an arrangement should be evaluated to determine whether or not it contains a lease.

If the SEPA were deemed a lease, it would need to be classified as either an operating or capital lease based on the criteria in Statement of Financial Accounting Standards ("SFAS") No. 13, "Accounting for Leases". If it were deemed an operating lease, the Companies would

[7] See further explanation of EITF 01-8 in "Lease Arrangements Have Broadened" filed in Docket No. 04-0113 HECO's 2005 test year rate case, HECO-2113.

account for payments as expenses and the PV Developer would report the investment in assets, related depreciation expense, and lease revenue. Although there is no recorded liability for the long-term lease expense payments, credit rating agencies would reflect these obligations as imputed debt in the ratios used to evaluate the Companies' risk profile. Further discussion of imputed debt is set forth below. If the SEPA was deemed a capital lease, the Companies would report an investment in asset, related depreciation, a capital lease obligation, and related interest expense. The Companies would depreciate the leased asset on a straight-line basis over the term of the SEPA. The lease payments made would be allocated between a reduction in the capital lease obligation and interest expense.

A preliminary evaluation of the standard form SEPA was performed and, based on the information currently available to the Companies, it appears that the standard form SEPA does contain a lease under EITF 01-8. Based on the criteria under SFAS No. 13, the Companies preliminary determination is that the lease is an operating lease[8].

However, since this conclusion is based on an evaluation of an unexecuted standard form

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[8] If at its inception, a lease meets one or more of the following four criteria, the lease shall be classified as a capital lease by the lessee: (FAS 13 paragraph 7): a. The lease transfers ownership of the property to the lessee by the end of the lease term. b. The lease contains a bargain purchase option. c. The lease term is equal to 75 percent or more of the estimated economic life of the leased property. d. The present value at the beginning of the lease term of the minimum lease payments, equals or exceeds 90 percent of the fair value of the leased property. There will be no transfer of ownership and no bargain purchase option in the SEPA. The expected 20-year SEPA term is 67% of 30-year system life. The Companies have concluded that lease payments to the third-party developers under the standard form SEPA would be considered contingent rentals. Contingent rentals defined in SFAS No. 29, "Determining Contingent Rentals, an amendment of FASB Statement No. 13" as "increases or decreases in lease payments that result from changes occurring subsequent to the inception of the lease in the factors on which lease payments are based. Lease payments that depend on a factor that exists and is measurable at the inception of the lease, such as the prime interest rate, would be included in minimum lease payments based on the factor at the inception of the lease. Lease payments that depend on a factor that does not exist or is not measurable at the inception of the lease, such as future sales volume, would be contingent rentals in their entirety and, accordingly, would be excluded from minimum lease payments..." Since the lease payments to the third-party developers under the standard form SEPA are considered contingent rentals, they are excluded from minimum lease payments and as a result, the net present value of the minimum lease payments does not exceed 90% of the fair value of the leased property. Therefore, none of the four criteria will be met, and the lease will be deemed an operating lease.

SEPA, this evaluation and conclusion are considered preliminary. The Companies will evaluate each SEPA between a third-party developer and one of the Companies upon contract execution. Therefore, the Companies may reach a different conclusion than that reached under the preliminary evaluation performed on the standard form SEPA and presented for purposes of this Application. In addition, EITF 01-8 also specifies certain conditions when the Companies must re-assess whether lease accounting treatment is required. After executing the SEPA the Companies will re-perform this analysis when the SEPA becomes effective and thereafter, if necessary.

The Companies will also evaluate the Host site lease agreements that are executed between the Companies and the Host customers. The Host site lease agreement will be evaluated under SFAS No. 13 to determine whether it should be accounted for as an operating or capital lease. At this time a standard form Host site lease agreement is still being developed. The Companies performed an initial preliminary evaluation of the conceptual material terms expected to be included in the agreement. Based on the criteria under SFAS No. 13, the Companies preliminary determination is that the Host site lease would be an operating lease.[9]

However, since this conclusion is based on an evaluation of the conceptual material terms expected to be included in the standard form Host site lease agreement, this evaluation and conclusion are considered preliminary. The Companies will evaluate each Host site lease agreement between the Host and one of the Companies, upon contract execution. Therefore, the

[9] The Site Lease will be evaluated under SFAS No. 13, par. 28 "Leases involving only part of a building". According to part a.II. (assuming fair value of the rooftop is not objectively determinable), the Site Lease would be evaluated under SFAS No. 13 par. 7(c). The term of the Site Lease will be limited to the lesser of 20 years or 70% of the remaining useful life of the building.

Companies may reach a different conclusion than that reached under the initial preliminary evaluation performed here and presented for purposes of this Application.

C. Impact of Imputed Debt on Credit Quality

The payments the Companies are to make under the standard form SEPA are for energy purchases only. On May 7, 2007, Standard & Poor's ("S&P") published an article, entitled "Standard & Poor's Methodology For Imputing Debt For U.S. Utilities' Power Purchase Agreements." In this article, S&P described that, for PPA's with only energy purchases, they consider "an implied capacity price that funds the recovery of the supplier's capital investment to be subsumed within the all-in energy price." S&P determines an implied capacity payment for the PPA in order to calculate imputed debt.[10]

HECO will target third-party installation of 4 MW of PV in each year of the two-year program period. MECO and HELCO will each target third-party installation of 2 MW of PV in each year of the two-year program period. The Companies prepared estimates of the imputed debt and rebalancing costs associated with the targeted installations totaling 8 MW during the pilot period at HECO and totaling 4 MW during the pilot period at both HELCO and MECO. The Companies based their estimates of the imputed debt and rebalancing costs on S&P's methodology as described. Assuming the Companies achieve the targeted installations during

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[10] "The pricing for some [purchase power agreement ("PPA")] contracts is stated as a single, all-in energy price. [S&P] considers an implied capacity price that funds the recovery of the supplier's capital investment to be subsumed within the all-in energy price. Consequently, we use a proxy capacity charge, stated in $/kW, to calculate an implied capacity payment associated with the PPA. The $/kW figure is multiplied by the number of kilowatts under contract. In cases of resources such as wind power that exhibit very low capacity factors, we will adjust the kilowatts under contract to reflect the anticipated capacity factor that the resource is expected to achieve.

We derive the proxy cost of capacity using empirical data evidencing the cost of developing new peaking capacity. We will reflect regional differences in our analysis. The cost of new capacity is translated into a $/kW figure using a weighted average cost of capital and a proxy capital recovery period. This number will be updated from time to time to reflect prevailing costs for the development and financing of the marginal unit, a combustion turbine."

the pilot program, imputed debt over the term of the standard form SEPA is estimated to be approximately $1,200,000 at HECO, with rebalancing costs estimated to be approximately $100,000 in the first year. The estimate of imputed debt at HELCO and MECO is estimated to be approximately $600,000, with rebalancing costs estimated to be approximately $50,000 in the first year. The balance of imputed debt and the related rebalancing costs will decline over the term of the standard form SEPA.

XII.

PROPOSED ACCOUNTING AND RATEMAKING TREATMENT

This section describes the Companies book accounting and proposed ratemaking treatment for the following items associated with the proposed PV Host Pilot Program. A detailed description and discussion of the PV Host pilot program budget and its components can be found in Section X.

A. Host site lease payments – For book accounting purposes, assuming the Host site lease agreement is determined to be an operating lease, the Companies will record and recognize the lease payments as lease rent expense as they are incurred. The Companies propose rate recovery of the revenue requirements resulting from the host site lease payments in each Company's next general rate case to the extent applicable.

B. SEPA energy payments – For book accounting purposes, assuming the standard form SEPA is determined to be an operating lease, the Companies will record and recognize the SEPA energy payments as purchase power expense as they are incurred. The Companies request Commission approval to include the incurred SEPA energy payments and related revenue taxes in each Company's Energy Cost Adjustment Clause ("ECAC") to the extent that the costs are not recovered in base rates.

C. Interconnection and Capital Costs – For book accounting purposes, the Companies will capitalize the costs of the interconnection study and the installed costs of the interconnection equipment, include them as utility assets, and depreciate them over the current Commission approved depreciation rates. The Companies propose that recovery of the investment made in interconnection and other capital equipment be through the Renewable Energy Infrastructure Surcharge to the extent that they are not reflected in base rates. Therefore, for ratemaking purposes and for purposes of calculating the revenue requirements for inclusion in the REIP Surcharge, the Companies propose that ratemaking treatment follow book accounting treatment.

D. Administrative Expenses – For book accounting purposes, the Companies will record and recognize the administrative expenses as they are incurred. The Companies propose rate recovery of the revenue requirements resulting from the costs to administer the PV Host pilot program at each Company, in that particular Company's next general rate case.

F. Commission Approval Requested – The Companies request Commission approval of the proposed accounting and ratemaking treatment of the PV Host pilot program components as described above. The Companies request Commission approval to include the purchased energy charges, and related revenue taxes, in each Company's respective ECAC to the extent that the costs are within the approved Program Budget and are not recovered in each Company's base rates. The Companies also request the Commission approve the inclusion of the reasonable costs, including the capitalized costs of the interconnection study and interconnection equipment, each Company incurs for the interconnection of the PV systems installed pursuant to the Program in a Renewable Energy Infrastructure Surcharge and allow each Company to include the reasonable costs it incurs pursuant to the Program in its revenue requirements for ratemaking purposes and for the purpose of determining the reasonableness of each Company's rates.

XIII.

FINANCIAL INFORMATION

Each Company's latest available balance sheet and income statement for the twelve months ending August 31, 2008, were filed with the Commission on September 26, 2008, and are incorporated by reference pursuant to Rule 6-61-76 of the Commission's Rules of Practice and Procedure, Title 6, Chapter 61, HAR.

XIV.

ENERGY COST ADJUSTMENT CLAUSE

Commission approval to recover incurred purchased energy costs via its ECAC, to the extent that the costs are not recovered in base rates, is sought pursuant to Section 6-60-6 of the Commission's Rules Establishing Standards for Electric and Gas Utility Service in the State of Hawaii. HAR Section 6-60-6(2) provides that:

> No changes in fuel and purchased energy costs may be included in the fuel adjustment clause unless the contracts or prices for the purchase or such fuel or energy have been previously approved or filed with the commission.

See Section X.1.a for the estimated purchased energy cost by Company.

XV.

GENERAL ORDER NO. 7

Commission approval is sought under the provisions of Paragraph 2.3(g)(2) of General Order No. 7, as modified by Decision and Order No. 21002, filed May 27, 2004 in Docket No. 03-0257, which states in part that "Proposed capital expenditures ... in excess of $2.5 million, excluding customer contributions ... shall be submitted to the Commission for review at least 60 days prior to the commencement of construction or commitment for expenditures, whichever is

earlier." The capital cost for the PV Host Pilot Program is estimated at $10,508,000, as explained further in Section X. In addition, the Companies waive the 90-day period for the Commission to issue a Decision and Order in this proceeding.

XVI.

SUMMARY

Wherefore, the Companies respectfully request that the Commission:

1. Find is reasonable for each Company to establish a two-year PV Host Pilot Program;

2. Find that each Company's purchased energy rate for the energy to be supplied by the Program PV systems is reasonable;

3. Approve each Company's proposed standard form PV Host solar energy purchase agreement;

4. Approve the inclusion of the purchased energy charges, and related revenue taxes, to be incurred under the PV Host SEPAs filed pursuant to the PV Host Pilot Program, in each Company's respective ECAC pursuant to Rule 6-60-6, to the extent that such costs are not recovered in each Company's base rates;

5. Approve the inclusion of the reasonable costs each Company incurs for the interconnection of the PV systems installed, which includes the capitalized costs of the interconnection study and interconnection equipment, pursuant to the Program in a Renewable Energy Infrastructure Surcharge;

6. Allow each Company to include the reasonable costs it incurs pursuant to the Program in its revenue requirements for ratemaking purposes and for the purpose of determining the reasonableness of each Company's rates;

7. Approve the commitment of funds in excess of $2,500,000 for the proposed PV Host Pilot Program (currently estimated at $10,508,000); and

8. Grant the Companies such other and further relief as may be just and equitable in the premises.

DATED: Honolulu, Hawaii, April 30, 2009.

HAWAIIAN ELECTRIC COMPANY, INC.
HAWAII ELECTRIC LIGHT COMPANY, INC.
MAUI ELECTRIC COMPANY, LIMITED

By _____
Darcy Endo-Omoto
Vice President

EXHIBIT A

SOLAR ENERGY PURCHASE AGREEMENT

This Solar Energy Purchase Agreement ("Agreement" or "SEPA") is made on _____, and entered into by and between _____ ("Seller") and Hawaiian Electric Company, Inc. (or Hawaii Electric Light Company, Inc. or Maui Electric Company, Limited)("Company"), sometimes also referred to herein jointly as "Parties" or individually as "Party." This Agreement is applicable only to the Generating Facility described and installed at [Identify specifically] ("Generating Facility" or "Facility"). This Agreement provides for (1) Seller's interconnection and operation of the Generating Facility in parallel with the Company's distribution system, and (2) the Company's purchase of electrical energy produced by the Generating Facility and delivered to the point of interconnection with the Company's system. The Generating Facility may not be relocated or connected to Company's system at any other location without Company's express written consent. A description of the Generating Facility including its maximum power export capacity ("Contract Capacity") and a summary of its significant components shown in Exhibit A, (DESCRIPTION OF SELLER'S GENERATING FACILITY), Exhibit B, (GENERATING FACILITY OWNED BY THE SELLER OR THIRD PARTY OWNER) including a single line diagram and three-line diagram showing the general arrangement of how the Generating Facility and loads are interconnected with Company, and Exhibit C, (INTERCONNECTION FACILITIES OWNED BY THE COMPANY), are attached to and made a part of this Agreement.

Section 1. Project Description:

Seller agrees to furnish all labor, engineering design, permitting, tools, materials, equipment, meals, lodging, transportation, and supervision necessary to complete in a professional manner the Facility that provides the energy for this SEPA, in accordance with the attached Exhibit A and Final Accepted Project Proposal; Facility Drawings in Exhibit E, and to the reasonable satisfaction of Company ("Project").

Section 2. Site:

The terms and conditions applicable to Seller's use of the project site are set forth in Exhibit G and are incorporated herein.

Section 3. Project Schedule And Commencement Of Operations:

Construction and installation of the Facility shall not begin until all permits have been obtained and written notification is provided to Seller by the Company. Seller shall complete the Project and have it ready for Acceptance Inspection (as defined below) by Company within ____ calendar days following the Effective Date. Time is of the essence on this Agreement.

Commencing upon the Effective Date of this Agreement, Seller shall submit to the Company, on the first Day of each calendar month until the Commercial Operation Date (the date the Seller begins providing energy from the Facility to the Company, following satisfaction of the conditions in this Section) is achieved, progress reports in a form reasonably satisfactory to the Company.

The Acceptance Inspection by the Company shall include the visual inspection of the complete integrated communication, control and safety systems and all facility equipment to verify compliance with the plans and specification ("Acceptance Inspection"). The Company shall witness the initial Verification Testing performed by the Seller, which shall include testing of all communication, utility control and safety systems and specifically the testing will include the demonstration of the immediate and safe shutdown of the PV system following the loss of grid power ("Verification Testing").

Prior to Acceptance Inspection and Verification Testing of the Facility the following activities must be completed:

(a) Certificates of insurance evidencing the coverages required by Section 16 and the accompanying Site License Terms and Conditions have been obtained and submitted to the Company; and

(b) Seller has submitted to the Company a certificate of an officer of Seller familiar with the Facility after due inquiry stating that all permits, consents, licenses, approvals, and authorizations required to be obtained by Seller from any Governmental Authority to operate the Facility in compliance with applicable law and this SEPA have been obtained and are in full force and effect, and that Seller is in compliance with the terms and conditions of this SEPA in all material respects.

(c) Seller has submitted to the Company four (4) copies of the as-built construction drawings, equipment Operations & Maintenance ("O&M") manuals and equipment and system warranties for the Project.

(d) Company review of all required Seller plans, specifications, and drawings to confirm compliance with system protection requirements and interconnection standards.

Seller shall not commence parallel operation of the Generating Facility until Company has provided written approval. Company shall provide such written approval within thirty (30) days from Company's inspection of the Generating Facility (which inspection shall occur after Seller's Generating Facility has been inspected and approved by the governmental authority having jurisdiction to inspect and approve the installation). Company's written approval shall not be unreasonably withheld. Company shall have the right to have its representatives present at the inspection made by the governmental authority having jurisdiction to inspect and approve the installation of the Generating Facility.

Section 4. Facility Development Milestones, Assurance, and Security:

The Seller agrees to develop the Generating Facility in an expeditious manner to enable the Company to achieve its renewable energy and program objectives. In the event the Generating Facility is not made available for Acceptance Inspection in accordance with Section 3, the Seller shall pay the Company, for each day that Seller fails to make the Generating Facility available for Acceptance Inspection, an amount of $____/kW multiplied by the Contract Capacity.

Section 5. PUC Approval:

PUC Approval: This Agreement is contingent upon a non-appealable approval by the Hawaii Public Utilities Commission ("PUC" or "Commission"), satisfactory to the Company, that approves this Agreement and allows the Company to recover the reasonable costs incurred by the Company pursuant to this Agreement in an appropriate manner, along with related taxes (hereinafter, the "PUC Approval"). The Company would deem the PUC Approval unsatisfactory if it (a) contains terms and conditions deemed to be unacceptable to the Company, in its sole discretion, or (b) it is subject to change through motion or appeal. This Agreement shall become effective (the "Effective Date") on the date the PUC Approval becomes non-appealable. Neither party shall have any obligations under this Agreement until the Effective Date, except those activities identified in Section 3 ("Project Schedule and Commencement of Operations") relating to design and permitting work and the terms of the Site License, and except further that the parties agree upon execution of this Agreement to be bound by this section and sections 17 (Financial Compliance), 24(f) (Governing Law), 24(h) (Limitation of Liability) and Exhibit H (Dispute Resolution).

If the Company has not received PUC Approval within 90 days of the date of the last signature to this Agreement, then either the Seller or the Company may terminate this Agreement by providing written notice of such termination delivered to the other prior to the Effective Date. In such event of termination, each Party shall bear its own respective fees, costs and expenses incurred prior to termination, if any, in preparation for performance hereunder, and the parties shall have no further obligation to each other with respect to this Agreement except for confidentiality obligations, if any, assumed by the parties relating hereto.

Section 6. Purchase of Energy; Billing and Payment:

(a) The Company agrees to purchase energy from the Seller in accordance with Exhibit D, commencing from the initial delivery of energy under this Agreement from the Generating Facility to the Company (the "Commercial Operation Date"). This Agreement shall not be construed to constitute a "take or pay" contract and the Company shall have no obligation to pay for any energy that has not actually been generated by the Generating Facility, measured by the Company's installed metering, and delivered to the Company at the Point of Interconnection as designated in Exhibit B. The Company will not reimburse the Seller for any taxes or fees imposed on the Seller including, but not limited to, State of Hawaii general excise tax.

(b) A statement for energy purchased by the Company will be rendered and accompanying payment will be made for such energy by the Company by the twentieth working day (i.e., excluding Saturdays, Sundays, and legal holidays of either the federal government or the Hawaii State government) of each calendar month (but, except as otherwise provided in the following sentence, no later than the last working day of that month if there are less than twenty working days in that month), in accordance with the Company's rules for service to its customers and the energy payment rates identified in Exhibit D. This payment will be adjusted by the monthly service charge as set forth in Section 7(c) of this Agreement.

(c) Any payment not made to the Seller by the due date for such payment pursuant to Section 6(b) shall accrue interest at the average daily prime rate at the Bank of Hawaii for the period

until the outstanding interest and energy payment amounts are paid in full. Partial payments shall be applied first to outstanding interest and then to outstanding energy payment amounts.

(d) The Seller, after giving reasonable advance written notice to the Company, shall have the right to review all billing, metering and related records relating to the Generating Facility during normal working hours. The Company shall maintain such records for a period of not less than thirty-six (36) months.

(e) The Seller shall not sell energy from the Seller's Facility to any Third Party, which includes subsidiaries of the Seller.

Section 7. Term:

This Agreement shall become effective upon execution by the Seller and the Company, and shall remain in effect for a term of twenty (20) years (the "Initial Term") following the Commercial Operation Date, subject to any early termination provisions set forth herein. Thereafter, the Seller and Company may, by written agreement, extend the term of this Agreement on a year-to-year basis. Either the Company or the Seller may terminate the Agreement at any time after the end of the Initial Term upon ninety (90) days written notification.

Section 8. Interconnection of Facilities:

(a) Facilities. (1) For the purposes of this Agreement, the "Generating Facility" is defined as the equipment and devices, and associated appurtenances, owned by the Seller or leased by the Seller, which produce electric energy and are to be interconnected and operated in parallel with the Company's system.

(2) The Seller shall furnish, install, operate and maintain, at its cost, the interconnection facilities (such as circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes) identified in Exhibit B hereto ("Seller Interconnection Facilities").

(3) The typical point of interconnection is shown on the single-line diagram (provided by the Seller and reviewed by the Company) which is attached to.

(4) The Seller agrees to test the Generating Facility, to maintain operating records, and to follow such operating procedures, as may be specified by the Company to protect the Company's system from damages resulting from the parallel operation of the Generating Facility, including such testing, records and operating procedures as more fully described in Exhibit B attached hereto and made a part hereof.

(5) The Company may inspect the Generating Facility, as more fully described in Exhibit B.

(b) Interconnection Facilities Owned by the Company. The Company agrees to furnish, install, operate and maintain such interconnection facilities on its side of the point of interconnection with the Generating Facility as required for parallel operation with the Generating Facility and as more fully described in Exhibit C ("Interconnection Facilites Owned by the Company") attached hereto and made a part hereof. All such interconnection facilities shall be the property of the Company.

(c) Seller Payments. The Seller shall pay to the Company all amounts pursuant to Exhibit C (Interconnection Facilities Owned by the Company). The interconnection costs will not include the cost of an initial technical screening of the impact of the Generating Facility on the Company's system, and will not include the cost of additional technical study for the Generating Facility, if additional technical study is conducted. The Seller shall pay to the Company a monthly service charge of $25.00 per month.

Section 9. Continuity of Service:

The Company may require the Seller to temporarily curtail, interrupt or reduce deliveries of energy: (a) when necessary in order for the Company to construct, install, maintain, repair, replace, remove, investigate or inspect any of its equipment or any part of its system; or (b) if the Company determines that such curtailment, interruption or reduction is necessary because of a system emergency, forced outage, inability to accept deliveries of energy due to light loading conditions, or compliance with good engineering practices. In any such event, the Company shall not be obligated to accept or pay for any energy from the Generating Facility except for such energy that the Company notifies the Seller that it is able to take during this period due to the aforesaid circumstances. The Company shall take all reasonable steps to minimize the number and duration of interruptions, curtailments or reductions.

If the Company determines that curtailment of energy becomes necessary for reasons other than those directly attributable to the Generating Facility, curtailments shall be made to the extent possible in reverse chronological order based on the Sellers' Commercial Operation Date, with deliveries under the agreement with the latest Commercial Operation Date being the first curtailed, and deliveries under the agreement with the earliest Commercial Operation Date being the last curtailed. Curtailment of the Generating Facility shall apply only to Generating Facilities with curtailment capability.

Section 10. Acquisition of Data By Company:

Seller agrees to allow Company to install, operate, and maintain data acquisition equipment at the Generating Facility at Company's expense. System performance data generated from the data acquisition system shall be owned by the Company. Such data may be provided by the Company to Seller by written agreement.

Section 11. Personnel and System Safety:

If at any time the Company determines that the continued operation of the Generating Facility may endanger any person or property, the Company's electric system, or have an adverse effect on the safety or power quality of other customers, the Company shall have the right to disconnect the Generating Facility from the Company's electric system. The Generating Facility shall remain disconnected until such time as the Company is satisfied that the endangering or power quality condition(s) has been corrected, and the Company shall not be obligated to accept or pay for any energy from the Generating Facility during such period. The Company shall not be liable directly or indirectly for permitting or continuing to allow an attachment of the Generating Facility or for the acts or omissions of the Seller that cause loss or injury, including death, to any third party. If the Company disconnects the Generating Facility from the Company's system, it

shall immediately notify the Seller by telephone and confirm in writing the reasons for the disconnection.

Section 12. Prevention of Interference:

The Seller shall not operate equipment that superimposes a voltage or current upon the Company's system that interferes with the Company's operations, service to the Company's customers, or the Company's communication facilities. Such interference shall include, but not be limited to, overcurrent, voltage imbalance, and abnormal waveforms. If such interference occurs, the Seller must diligently pursue and take corrective action at its own expense after being given notice and reasonable time to do so by the Company. If the Seller does not take timely corrective action, or continues to operate the equipment causing interference without restriction or limit, the Company may, without liability, disconnect the Seller's equipment from the Company's system.

Section 13. Metering:

The Company will supply, own, and maintain all necessary meters and associated equipment utilized for billing and energy purchase. The meters will be tested and read in accordance with the rules of the Commission and the Company. The Seller shall, at its expense, provide, install and maintain all conductors, service switches, fuses, meter sockets, meter instrument transformer housing and mountings, switchboard meter test buses, meter panels and similar devices required for service connection and/or meter installations on the Seller's premises in accordance with the Company's Rule 14, Section A.2. Company may, at its expense, install meter(s) to record the flow of electric power in each direction.

Section 14. Permits and Licenses:

The Seller shall be responsible for the design, installation, operation, and maintenance of the Generating Facility and shall obtain and maintain at its expense, any required governmental authorizations and/or permits for the construction and operation of the Generating Facility.

Section 15. Indemnification:

(a) The Seller shall indemnify, defend and hold harmless the Company and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Company's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Seller (or those of anyone under its control or on its behalf) with respect to its obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Generating Facility and/or the Seller Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Company or its officers, directors, agents or employees.

(b) The Company shall indemnify, defend and hold harmless the Seller, and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by

third persons, including the Seller's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Company (or those of anyone under its control or on its behalf) with respect to its obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Company Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Seller or its officers, directors, agents or employees.

(c) Nothing in this Agreement shall create any duty to, any standard of care with reference to, or any liability to any person not a party to it.

Provided, however, where the Seller is an agency of the State of Hawaii (the "State"), the State shall be responsible for damages or injury caused by the State's agents, officers, and employees in the course of their employment to the extent that the State's liability for such damage or injury has been determined by a court or otherwise agreed to by the State. The State shall pay for such damage and injury to the extent permitted by law. The State shall use reasonable good faith efforts to pursue any approvals from the Legislature and the Governor that may be required to obtain the funding necessary to enable the State to perform its obligations or cover its liabilities hereunder. The State shall not request the Company to indemnify the State for, or hold the State harmless from, any claims for such damages or injury.

The Company shall be responsible for damages or injury caused by the Company, Company's agents, officers, and employees in the course of their employment to the extent that the Company's liability for such damage or injury has been determined by a court or otherwise agreed to by the Company, and the Company shall pay for such damage and injury to the extent permitted by law. The Company shall not request the State to indemnify the Company for, or hold the Company harmless from, any claims for such damages or injury.

For Owner/Operators other than the State, the Owner/Operator shall indemnify, defend and hold harmless the Company and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Company's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Owner/Operator (or those of anyone under their control or on their behalf) with respect to their obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Generating Facility and/or the Seller and Owner/Operator Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Company or its officers, directors, agents or employees.

Section 16. Insurance:

The Seller shall, at its own expense, acquire and maintain commencing with the start of construction and continuing throughout the term of the Agreement and any other time that the Seller's facility is interconnected with the Company's System, with a responsible insurance company authorized to do insurance business in Hawaii, the minimum insurance coverage set forth herein that will protect the Seller, the Site Owner as described in Exhibit G and the

Company with respect to the Seller's facility, the Seller's operations, Seller's use of the Site Owner's property, and the Seller's interconnection with the Company's System

16.1 Additional Insured: The insurance Policies specified General Liability and Automobile Liability shall include Company and Site Owner as an additional insured, as their interest may appear, with respect to any and all third party bodily injury and/or property damage claims arising from Seller's performance of this Agreement and, to the extent permitted by such insurers after reasonable efforts of Seller to obtain such notice, shall require at least thirty (30) days' written notice to Company prior to cancellation of, or material modification to, such policy and ten (10) days' written notice to Company of cancellation due to failure by Seller to pay such premium. The insurance policies for Builders All Risk and All Risk Property/Comprehensive Boiler and Machinery shall include Company and Site Owner as loss payee, as their interest may appear with respect to any Property or Boiler and Machinery losses. Company acknowledges that Financing Parties shall be entitled to receive and distribute any and all loss proceeds as stipulated by any Financing Documents related to any policy described in this Article

16.2 Adequacy of Coverage: "Claims made" policies are not acceptable. The adequacy of the coverage afforded by the required insurance shall be subject to review by the Company from time to time, and if it appears in such review that risk exposures require an increase in the coverages and/or limits of this insurance, the Seller shall make such increase to that extent and any increased costs shall be borne by the Seller. The insurance required hereunder shall provide that it is primary with respect to the Seller and the Company.

16.3 Certificates of Insurance: The Seller shall provide evidence of such insurance, including insurer's acknowledgement that coverage applies with respect to this Agreement, by providing certificates of insurance to the Company within 30 days of any change. Initially, certificates of insurance must be provided to the Company prior to executing the contract and any parallel interconnection. The Seller's indemnity and other obligations shall not be limited by the foregoing insurance requirements. Any deductible shall be the responsibility of the Seller. Company acknowledges that any policy required herein may contain reasonable deductibles or self-insured retentions, the amounts of which will be reviewed for acceptance by Company. Acceptance will not be unreasonably withheld.

16.4 No Representation of Coverage Adequacy: By requiring insurance herein, Company does not represent that coverage and limits will necessarily be adequate to protect Seller, and such coverage and limits shall not be deemed as a limitation on Seller's liability under the indemnities granted to Company in this Agreement.

16.5 Self-Insurance: Any deductibles or self-insured retentions must be declared to and approved by Company.

16.6 General Insurance Requirements

(a) Each liability policy and related certificate of insurance shall also specifically provide the following: "This policy shall be considered to be primary liability insurance which shall apply to any loss or claim before any contribution by any insurance which Company, Site Owner, their employees and agents may have in force."

(b) Each policy is to be written by an insurer with a rating by A. M. Best Company, Inc. of "A- VII" or better.

(c) If the limits of available liability coverage required in this Agreement become substantially reduced as a result of claim payments, Seller immediately, at its own expense, shall purchase additional liability insurance (if such coverage is available at commercially reasonable rates) to increase the amount of available coverage to the limits of liability coverage required by this Agreement.

16.7 Commercial General Liability Insurance: The Seller or anyone acting in its behalf acting under its direction or control or on its behalf shall at its own expense procure and maintain in full force at all times during the term of this Agreement, Commercial General Liability insurance with a bodily injury and property damage combined single limit of at least TWO MILLION DOLLARS ($2,000,000) for any occurrence. The Seller has responsibility to determine if higher limits are desired and purchased.

16.8 Worker's Compensation and Employers' Liability and Temporary Disability Insurance: The Seller or anyone acting under its direction or control or on its behalf shall at its own expense procure and maintain in full force at all times during the term of this Agreement coverage for worker's compensation, temporary disability and other similar insurance required by applicable Hawaii State or U.S. federal laws.

16.9 Builders' Risk Insurance - The Seller or anyone acting under its direction or control or on its behalf shall at its own expense procure and maintain in full force at all times during the term of this Agreement Builders' Risk Insurance during the course of construction of this project. This insurance will cover the interests of Company, Seller and Subcontractors with respect to the Work. Company, Seller and any subcontractors agree to waive their rights of subrogation against each other with respect to any damage to the Work. Such coverage is required for this contract. Seller shall provide such insurance at its expense and shall be responsible for the deductible amount of such coverage.

16.10 Automobile Liability Insurance. The Seller or anyone acting under its direction or control or on its behalf shall at its own expense procure and maintain in full force at all times during the term of this Agreement, automobile liability insurance including coverage for owned, hired and non-owned automobiles. The limits of liability shall be a combined single limit of not less than Five Hundred Thousand Dollars ($500,000) for bodily injury and property damage each accident.

16.11 All Risk Property/Comprehensive Boiler and Machinery Insurance (Upon Completion of Construction): The Seller or anyone acting under its direction or control or on its behalf shall at its own expense procure and maintain in full force at all times during the term of this Agreement, All Risk Property Coverage (including the perils of Named Windstorm) and Comprehensive Boiler and Machinery Coverage against damage to the Facility. The amount of coverage shall be purchased on a full replacement cost basis (no coinsurance, Margin Clause or Occurrence

Definition shall apply) if such insurance amounts are available on commercially reasonable terms. Such coverage may allow for other reasonable sublimits. Such policies shall be endorsed to require that the coverage afforded shall not be canceled (except for nonpayment of premiums) or reduced without at least sixty (60) days' prior written notice to Seller and Company, provided, however, that such endorsement shall provide (i) that the insurer may not cancel the coverage for non-payment of premium without giving Seller and Company ten (10) days' notice that Seller has failed to make timely payment thereof, and (ii) that, subject to the consent of the Financing Parties, Seller or Company shall thereupon have the right to pay such premium directly to the insurer.

16.12 Application of Proceeds From All Risk Property/Comprehensive Boiler and Machinery Insurance: Seller shall use commercially reasonable efforts to obtain provisions in the Financing Documents, on reasonable terms, providing for the insurance proceeds from All Risk Property/Comprehensive Boiler and Machinery Insurance to be applied to repair of the Facility.

16.13 Project Liability Errors and Omissions: Seller shall be adequately protected against project liability errors and omissions on account of negligent actions or inactions of architects, engineers, contractors and subcontractors involved in the construction of the Facility. This protection may be provided through any one or more of the following mechanisms: (i) construction contract(s) with the above parties who have sufficient financial creditworthiness to cover project liability errors and omissions; (ii) other agreement(s) with the above parties; or (iii) reserve account(s) which may be used to correct material deficiencies associated with the Facility as a result of negligent actions or inactions of the above parties.

Section 17. Financial Compliance:

(a) Seller shall provide or cause to be provided to Company on a timely basis, as reasonably determined by Company, all information, including but not limited to information that may be obtained in any audit referred to below (the "Information"), reasonably requested by Company for purposes of permitting Company and its parent company, Hawaiian Electric Industries, Inc. ("HEI"), to comply with the requirements of (a) Interpretation No. 46 (revised December 2003) of the FASB, Consolidation of Variable Interest Entities, an interpretation of ARB No. 51 ("FIN No. 46R"), (b) Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX 404") and (c) all clarifications, interpretations and revisions of and regulations implementing FIN No. 46R and SOX 404 issued by the FASB, Securities and Exchange Commission, the Public Company Accounting Oversight Board, Emerging Issues Task Force or other governing agency. In addition, if required by Company in order to meet its compliance obligations, Seller shall allow Company or its independent auditor to audit, to the extent as is reasonably required, Seller's financial records, including its system of internal controls over financial reporting; provided that Company shall be responsible for all costs associated with the foregoing, including but not limited to Seller's reasonable internal costs. Company shall limit access to such Information to persons involved with such compliance matters and restrict persons involved in Company's monitoring, dispatch or scheduling of Seller and/or Seller's Generating Facility, or the administration of the Agreement, from having access to such Information, and persons reviewing such Information shall not participate in negotiations of amendments, modifications or clarifications of the Agreement (unless such participation is approved, in writing in advance, by Seller).

(b) If there is a change in circumstances during the term of the Agreement that would trigger consolidation of Seller's finances on to the Company's balance sheet, and such consolidation is not attributable to the Company's fault, then the Parties will take all commercially reasonable steps, including modification of the Agreement, to eliminate the consolidation, while preserving the economic "benefit of the bargain" to both Parties.

(c) Company shall, and shall cause HEI to, maintain the confidentiality of the Information as provided in this Section 17. Company may share the Information on a confidential basis with HEI and the independent auditors and attorneys for HEI and the Company. (Company, HEI, and their respective independent auditors and attorneys are collectively referred to in this Section 17 as "Recipient.") If either Company or HEI, in the exercise of their respective reasonable judgments, concludes that consolidation or financial reporting with respect to Seller and/or this Agreement is necessary, Company and HEI each shall have the right to disclose such of the Information as Company or HEI, as applicable, reasonably determines is necessary to satisfy applicable disclosure and reporting or other requirements and give Seller prompt written notice thereof (in advance to the extent practicable under the circumstances). If Company or HEI disclose Information pursuant to the preceding sentence, Company and HEI shall, without limitation to the generality of the preceding sentence, have the right to disclose Information to the PUC and the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs of the State of Hawaii ("Consumer Advocate") in connection with the PUC's rate making activities for Company and other HEI affiliated entities, provided that, if the scope or content of the Information to be disclosed to the PUC exceeds or is more detailed than that disclosed pursuant to the preceding sentence, such Information will not be disclosed until the PUC first issues a protective order to protect the confidentiality of such Information. Neither Company nor HEI shall use the Information for any purpose other than as permitted under this Section 17.

(d) In circumstances other than those addressed in the immediately preceding paragraph, if any Recipient becomes legally compelled under applicable law or by legal process (e.g., deposition, interrogatory, request for documents, subpoena, civil investigative demand or similar process) to disclose all or a portion of the Information, such Recipient shall undertake reasonable efforts to provide Seller with prompt notice of such legal requirement prior to disclosure so that Seller may seek a protective order or other appropriate remedy and/or waive compliance with the terms of this Section 17. If such protective order or other remedy is not obtained, or if Seller waives compliance with the provisions of this Section 17, Recipient shall furnish only that portion of the Information which it is legally required to so furnish and to use reasonable efforts to obtain assurance that confidential treatment will be accorded to any disclosed material.

(e) The obligation of nondisclosure and restricted use imposed on each Recipient under this Section 17 shall not extend to any portion(s) of the Information which (a) was known to such Recipient prior to receipt, or (b) without the fault of such Recipient is available or becomes available to the general public, or (c) is received by such Recipient from a third party not bound by an obligation or duty of confidentiality.

Section 18. Termination for Cause:

(a) If any of the following conditions occur during the term of this Agreement, then in such case, the Company shall have the right to terminate this Agreement as provided in this Section:

(1) The Seller, by act or omission, materially breaches or defaults on any material covenant, condition or other provision of this Agreement, and fails to cure such breach or default within thirty (30) days after written notice of such breach or default from the Company, unless (i) such breach or default is due to Force Majeure, provided, however, that if the Seller does not cure such breach or default resulting from Force Majeure within 180 days of such notice, the Company may terminate this Agreement; or, (ii) such breach or default cannot be cured within thirty (30) days and the Seller is making diligent efforts to cure such breach or default, provided, however, that if such breach or default is not cured within 180 days of such notice, the Company may terminate this Agreement;

(2) The Seller fails to operate, maintain, or repair the Seller Facility in accordance with Good Engineering and Operating Practices within thirty (30) days of written notice of such breach from the Company, and subject to the same extension of cure periods as set forth in Section 17(a)(1) above;

(3) The Seller makes a general assignment for the benefit of its creditors;

(4) The Seller files bankruptcy, has a petition for involuntary bankruptcy filed against it, or has a receiver appointed because of insolvency;

(5) The Seller's dissolution or liquidation;

(6) The Seller's actual fraud, waste, tampering with Company owned facilities, theft of Company property or other material intentional misrepresentation or misconduct in connection with this Agreement and/or the operation of the Facility;

(7) The Seller's abandonment of construction or operation of the Facility; or

(8) The Seller's failure to maintain in effect required interconnection equipment, as referenced in Exhibit B.

(b) Before terminating this Agreement for cause, the Company shall give written notice to the Seller of the existence of one or more of the above conditions allowing termination for cause and of the Company's intention to exercise its termination rights if the condition is not corrected to the satisfaction of Company. Upon receipt of the Company's notice of intent to terminate for cause, the Seller shall have thirty (30) days in which to correct the noted condition to the satisfaction of the Company.

(c) The Seller may terminate the Agreement at any time if the Company, by act or omission, materially breaches or defaults on any material covenant, condition or other provision of this Agreement, and fails to cure such breach or default within thirty (30) days after written notice of such breach or default from the Seller, unless (i) such breach or default is due to Force Majeure, provided, however, that if the Company does not cure such breach or default within 180 days of such notice, the Seller may terminate this Agreement; or, (ii) such breach or default cannot be cured within thirty (30) days and the Company is making diligent efforts to cure such breach or default, provided, however, that if such breach or default is not cured within 180 days of such notice, the Seller may terminate this Agreement.

(d) In the event a termination for cause occurs, the Company may terminate the Agreement and negotiate a remedy with the Seller, including a possible buy-out of the Facility as described in Appendix F, Company's First-Right-of-Refusal. If a negotiated remedy is not reached within 30 days, Seller shall be obligated to remove the Facility from the project site.

Section 19. Force Majeure:

For purposes of this Agreement, "Force Majeure Event" means any event: (a) that is beyond the reasonable control of the affected party; and (b) that the affected party is unable to prevent or provide against by exercising reasonable diligence, including the following events or circumstances, but only to the extent they satisfy the preceding requirements: acts of war, public disorder, insurrection, or rebellion; floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; explosions or fires; strikes, work stoppages, or labor disputes; embargoes; and sabotage. If a Force Majeure Event prevents a party from fulfilling any obligations under this Agreement, such party will promptly notify the other party in writing, and will keep the other party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected party will specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected party is taking to mitigate the effects of the event on its performance. The affected party will be entitled to suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of reasonable efforts. The affected party will use reasonable efforts to resume its performance as soon as possible.

Section 20. Good Engineering Practice:

Each party agrees to install, operate and maintain its respective equipment and facilities and to perform all obligations required to be performed by such party under this Agreement in accordance with good engineering practice in the electric industry and with applicable laws, rules, orders and tariffs. Wherever in this Agreement and the attached Exhibits the Company has the right to give specifications, determinations or approvals, such specifications, determinations or approvals shall be given in accordance with the Company's standard practices, policies and procedures and shall not be unreasonably withheld. Any such specifications, determinations, or approvals shall not be deemed to be an endorsement, warranty, or waiver of any right of the Company.

Section 21. Assignment:

This Agreement may not be assigned by either the Company or the Seller without the prior written consent of the other party (such consent not to be unreasonably withheld, conditioned, or delayed); provided that the Seller shall have the right, without the consent of the Company, for the purposes of arranging or rearranging debt and/or equity financing for the Generating Facility, to assign all or any part of its rights or benefits, but not its obligations, to any lender providing debt financing for the Generating Facility. The Seller shall immediately provide written notice to the Company of any assignment of all or part of the Agreement and the Seller shall provide to the Company all information about the assignment and the assignee reasonably requested by the Company.

Section 22. Warranties:

The Company and the Seller each represents and warrants respectively that it has all necessary right, power and authority to execute, deliver and perform this Agreement, and that the execution, delivery and performance of this Agreement by it will not result in a violation of any law or regulation of any governmental authority, or conflict with, or result in a breach of, or cause a default under, any agreement or instrument to which such party is also a party or by which it is bound.

Section 23. Equal Employment Opportunity and Employment of Disabled Veterans and Veterans of the Vietnam Era:

(Applicable to all contracts of $10,000 or more in the whole or aggregate. 41 CFR 60-1.4 and 41 CFR 60-741.5(a).)

Seller is aware of and is fully informed of Seller's responsibilities under Executive Order 11246 (reference to which include amendments and orders superseding in whole or in part) and shall be bound by and agrees to the provisions as contained in Section 202 of said Executive Order and the Equal Opportunity Clause as set forth in 41 CFR 60-1.4 and 41 CFR 60-741.5(a), which clauses are hereby incorporated by reference.

Employment of Disabled Veterans and Veterans of the Vietnam Era. (Applicable to all contracts of $10,000 or more in the whole or aggregate. 41 CFR 60-250.4 and 41 CFR 60-741.5.) Seller agrees that it is and will remain in compliance with the rules and regulations promulgated under The Vietnam Era Veterans Readjustment Assistance Act of 1974, The Affirmative Action Clause set forth in 41 CFR 60-250.4, the Rehabilitation Act of 1973 and the Equal Opportunity Clause set forth in 41 CFR 60-741.5, which clauses are incorporated by reference herein.

Section 24. Miscellaneous:

(a) Limitation of Liability. Neither by inspection, if any, or non-rejection, nor in any other way, does the Company give any warranty, express or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Seller or leased by the Seller from third parties, including without limitation the Generating Facility and any structures, equipment, wires, appliances or devices appurtenant thereto.

Each party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages of any kind whatsoever.

(b) Amendment, Modifications, or Waiver. This Agreement may not be altered or modified by either of the Parties, except by an instrument in writing executed by each of them. None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given

in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

(c) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, legal representatives, and permitted assigns.

(d) Notice. Any written notice required under this Agreement shall be mailed at any United States Post Office with postage prepaid and addressed to the other Party, or personally delivered to the other Party, at the addresses below. Changes in such designation may be made by notice similarly given. All written notices shall be directed as follows:

Seller

_____

_____

_____

Company

_____

_____

_____

Notices sent by mail shall be deemed to have been given on the date of actual delivery or at the expiration of the fifth day after the date of mailing, whichever is earlier. Any notice delivered by facsimile must be followed by personal or mail delivery and the effective date of such notice shall be the date of personal delivery or, if by mail, the earlier of the actual date of delivery or the expiration of the fifth day after the date of mailing.

(e) Entire Agreement. This Agreement contains the entire agreement and understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement.

(f) Governing Law. This Agreement is executed in the State of Hawaii and must in all respects be interpreted, governed, and construed under the laws of the State of Hawaii. This Agreement is subject to, and the parties' obligations hereunder include, operating in full compliance with all valid, applicable federal, state, and local laws or ordinances, and all applicable rules, regulations, orders of, and tariffs approved by, duly constituted regulatory authorities having jurisdiction. The venue for a civil action related to this Agreement shall be the judicial circuit in which the Generating Facility is located.

(g) Hawaii Public Utilities Commission. This Agreement shall, at all times, be subject to such changes or modifications by the Hawaii Public Utilities Commission ("PUC") as said PUC may, from time to time, direct in the exercise of their jurisdiction.

(h) Limitations. Nothing in this Agreement shall limit the Company's ability to exercise its rights or expand or diminish its liability with respect to the provision of electrical service pursuant to

the Company's Tariff as filed with the Commission, or the Commission's Standards for Electric Utility Service in the State of Hawaii, which currently are included in the Commission's General Order Number 7, as either may be amended from time to time.

(i) Effect of Section and Exhibit Headings. The headings or titles of the several sections and exhibits in this Agreement are for convenience of reference and shall not affect the construction or interpretation of any provision of this Agreement.

(j) Multiple Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same agreement.

(k) Relationship of the Parties. Nothing in this Agreement shall be deemed to constitute any party hereto as partner, agent or representative of the other party or to create any fiduciary relationship between the parties.

(l) Severability. If any term or provision of this Agreement, or the application thereof to any person, entity or circumstances is to any extent invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

(m) Environmental Credits. To the extent not prohibited by law, any Environmental Credit associated with renewable energy purchased by the Company from the Seller shall be the property of the Company; provided, however, that such Environmental Credits shall be to the benefit of the Company's ratepayers in that the value must be credited "above the line". The Seller shall use all reasonable efforts to ensure such Environmental Credits are vested in the Company, and shall execute all documents, including, but not limited to, documents transferring such Environmental Credits, without further compensation, provided, however, that the Company agrees to pay for all reasonable costs associated with such efforts and/or documentation.

(n) Certification by Licensed Electrical Contractor. Generating and interconnection systems must comply with all applicable safety and performance standards of the National Electrical Code (NEC), Institute of Electrical and Electronic Engineers (IEEE), and accredited testing laboratories such as the Underwriters Laboratories (UL), and where applicable, the rules of the Commission, or other applicable governmental laws and regulations, and the Company's interconnection requirements, in effect at the time of signing this agreement. This requirement shall include, but not be limited to, the interconnection provisions of Company's Rule 14, Paragraph H. of the Company's tariff, as authorized by the Commission. Licensed Electrical Contractor, as agent for Seller, certifies in Exhibit A that the proposed Generating Facility will meet all preceding requirement(s).

(o) Transmission and Distribution Service Not Provided with Interconnection. Interconnection with the Company's system under this Agreement does not provide the Seller any rights to utilize the Company's system for the transmission or distribution of electric power.

(p) Additional Information. The Company reserves the right to require additional information, where necessary, to facilitate performance under this Agreement.

SIGNATURES:

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the latter of the two dates set forth below.

SELLER:	**HAWAIIAN ELECTRIC COMPANY, INC.**
By:	By:
Name:	Name:
Title:	Title:
Date:	Date:

APPENDIX A

DESCRIPTION OF SELLER'S GENERATION AND CONVERSION FACILITIES
(As much detail as possible to be provided prior to contract execution, with remaining or updated information to be provided as soon as available)

Facility and Contact Information

1. Name of facility: _____
   a. Location: _____
   b. Telephone number (for system emergencies): _____
   c. Company billing account no.: TBD

2. Responsible party during construction of facility
   a. Name: _____
   b. Type of business: _____
      (Sole proprietorship, limited partnership, general partnership, corporation, etc.)
   c. State of incorporation or registration: Delaware
   d. Phone Number: _____

3. Operator
   a. Name: _____
   b. Type of business: _____
      (Sole proprietorship, limited partnership, general partnership, corporation, etc.)
   c. State of incorporation or registration: _____
   d. Phone Number: _____

4. Name of person or company whom payments are to be made:
   Accounts Receivable
   a. Mailing address: _____
   b. Hawaii Gross Excise Tax License Number: _____

Generator Qualifications

Is the generator a Qualifying Facility as defined under Subpart B, Section 201 of the Federal Energy Regulatory Commission's regulations per the Public Utility Regulatory Policies Act of 1978, or the PUC's Standards for Small Power Production and Cogeneration (Hawaii Administrative Rules Title 6, Chapter 74)?

☐ Yes ☐ No

Maximum Generating Capability: _____ kW

Generator Technical Information

Solar collector Manufacturer, Model Name & Number: _____

(A copy of Generator Nameplate and Manufacturer's Specification Sheet may be substituted)

_____ Nameplate Rating in kW: _____

Operating Power Factor: _____

Inverter Manufacturer, Model Name & Number: _____

(A copy of Inverter Nameplate and Manufacturer's Specification Sheet may be substituted)

_____ Rating in kW:) _____

Operating Power Factor: _____

Generator Grounding Method:

☐ Effectively Grounded ☐ Resonant Grounded

☐ Low-Inductance Grounded ☐ High-Resistance Grounded

☐ Low-Resistance Grounded ☐ Ungrounded

Interconnection Equipment Technical Data

Will an interposing transformer be used between the generator and the point of interconnection? ☐ Yes ☐ No

Transformer Data (if applicable, for Seller Owned Transformer):

(A copy of transformer Nameplate and Manufacturer's Test Report may be substituted)

Size: ___ KVA. Transformer Primary: _____ 480 Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Secondary: 208 Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Impedance: _____ % on _____ KVA Base

Transformer Fuse Data (if applicable, for Seller Owned Fuse):
(Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves)

At ☐ Primary Voltage ☐ Secondary Voltage

Manufacturer: _____ Type: _____ Size: _____ Speed: _____

Transformer Protection (if not fuse):

Please describe: Transformer has integrated electronic overload sensing and protection device.

Generator Disconnect Switch:

A generator disconnect device (isolation device) must be installed with features as described in the "HECO, HELCO, MECO Distributed Generating Facility Interconnection Standards, Technical Requirements" as set forth in Rule No. 14 (Paragraph H.1) of the Company's tariff, and which is accessible to Company.

Manuf.: _____ Type: _____ Catalog No.: _____ Rated Volts: _____ Rated Amps: ____

Single or 3 Phase: _____ Mounting Location: _____

General Technical Information

Enclose copy of site single-line diagram showing configuration and interconnection of all equipment, current and potential circuits and protection and control schemes.

Is Single-Line Diagram Enclosed? ☐

Enclose copy of site utility-interactive inverter documentation, including set points and UL 1741 certification for operation at those set points, that are required to operate the Facility in a safe and reliable manner.

Is Utility-interactive Inverter documentation Enclosed? ☐

Enclose copy of site three-line diagram showing potential transformer and current transformer ratios, and details of the Facility's configuration, including inverters, meters, and test switches.

Is Three-Line Diagram Enclosed? ☐

Insurance

Insurance Carrier: _____

Installation Details

Installing Electrical Contractor: _____ Firm: _____ License No.: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: Area Code: _____ Number: _____

Installation Date: _____ Interconnection Date: _____

At the time of installation, Seller shall have completed and signed (by appropriate parties), and transmitted to Company the requested certifications, in the form shown below. Those signed certifications will then be attached to Appendix A.

Supply certification that the generating system has been installed and inspected in compliance with the local Building/Electrical code of the county of _____

Signed (Inspector): _____ Date: _____

(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

Generator/Equipment Certification

Generating systems that utilize inverter technology must be compliant with *Underwriters Laboratories UL 1741 standard for utility-interactive inverters* in effect at the time this Agreement is executed. Generating systems must be compliant with applicable National Electrical Code, and Institute of Electrical and Electronics Engineers standards and rules and orders of the Hawaii Public Utilities Commission in effect at the time this Agreement is executed.

By signing below, the Applicant certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.

Signed (Seller): _____ Date: _____

EXHIBIT B

GENERATING FACILITY OWNED BY THE SELLER OR THIRD PARTY OWNER
(To Be Filled Out by Seller)

1. Generating Facility

   a. Compliance with laws and standards. The Generating Facility, Generating Facility design, and Generating Facility design drawings shall meet all applicable national, state, and local laws, rules, regulations, orders, construction and safety codes, and shall satisfy the Company's Distributed Generating Facility Interconnection Standards, Technical Requirements ("Interconnection Standards"), as set forth in Rule No. 14, Paragraph H.1 of the Company's tariff.

   b. Avoidance of adverse system conditions. The Generating Facility shall be designed, installed, operated and maintained so as to prevent or protect against adverse conditions on the Company's system that can cause electric service degradation, equipment damage, or harm to persons, such as:

      (i) Unintended islanding.

      (ii) Inadvertent and unwanted re-energization of a Company dead line or bus.

      (iii) Interconnection while out of synchronization.

      (iv) Overcurrent.

      (v) Voltage imbalance.

      (vi) Ground faults.

      (vii) Generated alternating current frequency outside of permitted safe limits.

      (viii) Voltage outside permitted limits.

      (ix) Poor power factor or reactive power outside permitted limits.

      (x) Abnormal waveforms.

   c. Specification of protection, synchronizing and control requirements. The Seller shall provide the design drawings, operating manuals, manufacturer's brochures/instruction manual and technical specifications, manufacturer's test reports, bill of material, protection and synchronizing relays and settings, and protection, synchronizing, and control schemes for the Generating Facility to the

Company for its review, and the Company shall have the right to specify the protection and synchronizing relays and settings, and protection, synchronizing and control schemes that affect the reliability and safety of operation and power quality of the Company's system with which the Generating Facility is interconnected ("Generating Facility Protection Devices/Schemes"). After the implementation of the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, the Company may require changes in the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, when required by the Company's system operations, at the Company's expense. After the implementation of the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, the Company may require changes in the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, when required by the Generating Facility's operations, at the Seller's expense.

d. Generating Facility protection. The Seller is solely responsible for providing adequate protection for the Generating Facility.

e. Seller Interconnection Facilities.

(i) The Seller shall furnish, install, operate and maintain interconnection facilities (such as circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes) designated by or acceptable to the Company as suitable for parallel operation of the Generating Facility with the Company's system ("Seller Interconnection Facilities"). Such facilities shall be accessible at all times to authorized Company personnel.

(ii) Design, installation, operation and maintenance of the Generating Facility shall include appropriate control and protection equipment, including an automatic load-break device such as a circuit breaker or inverter and a manual disconnect device that has a visible break to isolate the Generating Facility from the Company's system. The manual disconnect device must be accessible by the Company and be capable of being locked by the Company in the open position, to establish working clearance for maintenance and repair work in accordance with the Company's safety rules and practices. The disconnect devices shall be furnished and installed by the Customer Generator and are to be connected between the Generating Facility and the Company's electric system. The disconnect devices shall preferably be located in the immediate vicinity of the electric meter serving the Seller. With permission of the Company, the disconnect devices may be located at an alternate location which is accessible to the Company on a 24-hour basis. The manual disconnect device shall be clearly labeled "Seller System Disconnect".

The Seller shall grant access to the Company to utilize the disconnect device, if needed. The Seller shall obtain the authorization from the owner and/or occupants of the premises where the Generating Facility is located

that allows the Company to access the Generating Facility for the purpose specified in this Agreement. Company may enter premises where the Generating Facility is located at all reasonable hours without notice to Seller for the following purposes: (a) To inspect Generating Facility's protective devices and read or test meter(s); and (b) to disconnect the Generating Facility and/or service to Seller, whenever in Company's sole opinion, a hazardous condition exists and such immediate action is necessary to protect persons, Company's facilities, or property of others from damage or interference caused by the Generating Facility, or the absence or failure of properly operating protective device.

(iii) The Seller shall comply with the Company's Interconnection Standards. If a conflict exists between the Interconnection Standards and this Agreement, this Agreement shall control.

(iv) A 1) single-line diagram, 2) relay list, trip scheme and settings of the Generating Facility, 3) Generating Facility Equipment List, and 4) three-line diagram, which identify the circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes, shall, after having obtained prior consent from the Company, be attached to this Exhibit B and made a part hereof at the time the Agreement is signed. The single-line diagram shall include pertinent information regarding operation, protection, synchronizing, control, monitoring and alarm requirements. The single-line diagram and three-line diagram shall expressly identify the point of interconnection of the Generating Facility to the Company's system. The relay list, trip scheme and settings shall include all protection, synchronizing and auxiliary relays that are required to operate the Generating Facility in a safe and reliable manner. The three-line diagram shall show potential transformer and current transformer ratios, and details of the Generating Facility's configuration, including relays, meters, and test switches.

f. Approval of Design Drawings. The single-line diagram, relay list, trip scheme and settings of the Generating Facility, and three-line diagram shall be approved by a Professional Electrical Engineer licensed in the State of Hawaii prior to being submitted to the Company. Such approval shall be indicated by the engineer's professional seal on all drawings and documents.

2. Verification Testing.

a. Upon initial parallel operation of the Generating Facility, or any time interface hardware or software is changed, a verification test of Seller Interconnection Facilities shall be performed by Seller. A qualified individual, hired or employed by the Seller, shall perform the verification testing in accordance with the manufacturer's published test procedure. Qualified individuals include licensed professional engineers, factory trained and certified technicians, and licensed electricians with experience in testing protective equipment. The Company

reserves the right to witness verification testing or require written certification that the testing was performed.

b. Verification testing shall be performed every four years. All verification tests prescribed by the manufacturer shall be performed. If wires must be removed to perform certain tests, each wire and each terminal shall be clearly and permanently marked. The Seller shall maintain verification test reports for inspection by the Company.

c. Single-phase inverters rated 10 kVA and below (if any) shall be verified once per year as follows: once per year the Seller shall operate the load break disconnect switch and verify the Generating Facility automatically shuts down and does not reconnect with the Company's system until the Company's system continuous normal voltage and frequency have been maintained for a minimum of 5 minutes. The Seller shall maintain a log of these operations for inspection by the Company.

d. Any system that depends upon a battery for trip power shall be checked once per month for proper voltage. Once every four (4) years the battery shall either be replaced or have a discharge test performed. The Seller shall maintain a log of these operations for inspection by the Company.

e. Tests and battery replacements as specified in this section 2 of Exhibit B shall be at the Seller's expense.

3. Inspection of the Facility.

a. The Company may, in its discretion and upon reasonable notice not to be less than 24 hours (unless otherwise agreed to by the Company and the Seller), observe the construction of the Generating Facility (including but not limited to relay settings and trip schemes) and the equipment to be installed therein.

b. Within fourteen days after receiving a written request from the Seller to begin producing electric energy in parallel with the Company's system, the Company shall inspect the Generating Facility (including but not limited to relay settings and trip schemes) and observe the performance of the verification testing. The Company may accept or reject the request to begin producing electric energy based upon the inspection or verification test results.

c. The Company may, in its discretion and upon reasonable notice not to be less than 24 hours (unless an apparent safety or emergency situation exists which requires immediate inspection to resolve a known or suspected problem), inspect the Generating Facility (including but not limited to relay settings and trip schemes) and its operations (including but not limited to the operation of control, synchronizing, and protection schemes) after the Generating Facility commences operations.

4. Operating Records and Procedures.

a. The Company may require periodic reviews of the maintenance records, and available operating procedures and policies of the Generating Facility.

b. The Seller must separate the Generating Facility from the Company's system whenever requested to do so by the Company's System Operator pursuant to Sections 9, 11 and 12 of the Agreement. It is understood and agreed that at times it may not be possible for the Company to accept electric energy due to temporary operating conditions on the Company's system, and these periods shall be specified by the Company's System Operator. Notice shall be given in advance when these are scheduled operating conditions.

c. Logs shall be kept by the Seller for information on unit availability including reasons for planned and forced outages; circuit breaker trip operations, relay operations, including target initiation and other unusual events. The Company shall have the right to review these logs, especially in analyzing system disturbance.

5. Changes to the Generating Facility, Operating Records, and Operating Procedures.

a. The Seller agrees that no material changes or additions to the Generating Facility as reflected in the single-line diagram, relay list, trip scheme and settings of the Generating Facility, Generating Facility Equipment List, and three-line diagram shall be made without having obtained prior written consent from the Company.

b. As a result of the observations and inspections of the Generating Facility (including but not limited to relay list, trip scheme and settings) and the performance of the verification tests, if any changes in or additions to the Generating Facility, operating records, and operating procedures and policies are required by the Company, the Company shall specify such changes or additions to the Seller in writing, and the Seller shall, as soon as practicable, but in no event later than thirty (30) days after receipt of such changes or additions, respond in writing, either noting agreement and action to be taken or reasons for disagreement. If the Seller disagrees with the Company, it shall note alternatives it will take to accomplish the same intent, or provide the Company with a reasonable explanation as to why no action is required by good engineering practice.

(Additional terms and provisions to be added as necessary. Note: This parenthetical phrase should be deleted when the agreement is finalized.)

Generating Facility Equipment List

The Generating Facility shall include the following equipment:

(Specific items to be added as necessary. Note: This parenthetical phrase should be deleted when the agreement is finalized.)

(This Generating Facility Equipment List, together with the single-line diagram, relay list and trip scheme, and three-line diagram (if the Generating Facility's capacity is greater than or equal to 30 kW), should be attached behind Exhibit B. Note: This parenthetical phrase should be deleted when the agreement is finalized.)

Drawing Showing Typical Point of Interconnection

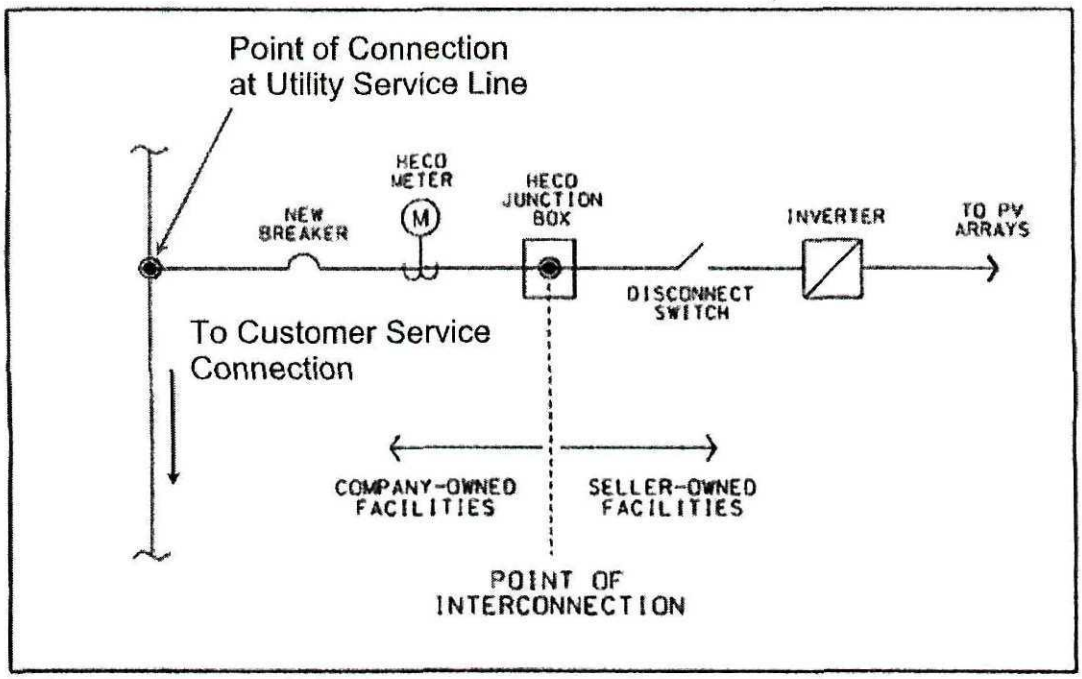

EXHIBIT C

INTERCONNECTION FACILITIES OWNED BY THE COMPANY
(To Be Filled Out By Company)

1. Description of Company Interconnection Facilities

The Company will purchase, construct, own, operate and maintain all interconnection facilities required to interconnect the Company's system with the Generating Facility at ___ volts, up to the point of interconnection.

The Company Interconnection Facilities, for which the Seller agrees to pay, include:

[Need to specify the interconnection facilities. If no interconnection facilities, state "None".]

2. Seller Payment to Company for Company Interconnection Facilities

The Seller shall pay to the Company the total estimated cost of the Company Interconnection Facilities as follows:

Description	Estimated Cost ($)

[Need to specify the estimated interconnection cost. If no cost, state "None".]

Total Estimated Interconnection Cost $_____

The Total Estimated Interconnection Cost, which, except as otherwise provided herein, is nonrefundable, shall be paid by the Seller fourteen (14) days after receipt of an invoice from the Company, which shall be provided not less than thirty (30) days prior to start of procurement of the Company Interconnection Facilities.

Within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting, which shall take place within sixty (60) days of completion of construction of the Company Interconnection Facilities, the Seller shall remit to the Company the difference between the Total Estimated Interconnection Cost paid to date and the lesser of one hundred twenty percent (120%) of the Total Estimated Interconnection Cost or the total actual interconnection cost (Total Actual Interconnection Cost). If in fact the Total Actual Interconnection Cost is less than the payments received by the Company as the Total Estimated Interconnection Cost, the Company shall repay the difference to the Seller within thirty (30) days of the final accounting.

If the Agreement is terminated prior to the Seller's payment for the Total Actual Interconnection Cost (or the portion of this cost which has been incurred) or prior to the Company's repayment of the overcollected amount of the Total Estimated Interconnection Cost (or the portion of this cost which has been paid), such payments shall be made by the Seller or Company, as appropriate. If payment is due to the Company, the Seller shall pay within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting,

which shall take place within sixty (60) days of the date the Agreement is terminated. If payment is due to the Seller, the Company shall pay within thirty (30) days of the final accounting.

All Company Interconnection Facilities shall be the property of the Company.

3. Customer Use of Company Interconnection Facilities Upon Termination

Not withstanding that all Company Interconnection Facilities are the property of the Company, upon termination of the Agreement, the Company shall identify any equipment paid for by the Seller that can feasibly be returned to the Seller. If Seller desires such equipment, Seller shall pay for the removal of the equipment and the restoration of the Company's system to the Company's satisfaction.

EXHIBIT D

PURCHASE OF ENERGY BY COMPANY

1. Price for Purchase and Rate of Delivery. Subject to the provisions of this Agreement, the Company shall accept and pay for energy generated by the Seller's Generating Facility and delivered by the Seller to the Company at the rates set forth in Table D-1 below beginning with the Commercial Operation Date.

2. Test Energy. The Company shall use commercially reasonable efforts to accept test energy that is delivered as part of the normal testing for generators, provided the Seller must use commercially reasonable efforts to coordinate such normal testing with the Company so as to minimize adverse impacts on the Company's System and operations. The Company shall compensate the Seller for test energy at a rate equivalent to 75% of the first year Contract Price.

[Table D-1 placeholder]

Year	**Rate**
Years 1-20	$0.xxxx/kWh

EXHIBIT E

FINAL ACCEPTED PROJECT PROPOSAL; FACILITY DRAWINGS

(Insert Sellers Project Proposal & Drawings)

EXHIBIT F

COMPANY'S FIRST RIGHT-OF-REFUSAL OPTIONS

1. Company shall have a first-right-of-refusal option ("FRR Option") to purchase from Seller the Facility and all related machinery, equipment, inventory, spare parts, and consumables owned by Seller (the "Related Materials") in accordance with this Appendix. If Seller intends to sell the Facility to a third party, then paragraph 13 herein shall apply.

2. Company's FRR Option shall arise at any time after Company has the right to terminate this Agreement as set forth in the SEPA.

3. Company is not obligated to exercise its FRR Option. Company may at all times pursue its rights upon termination as set forth in the SEPA or at law or in equity. The FRR Option is a cumulative remedy, not exclusive. However, if Company elects to exercise the FRR Option, it shall provide written notice of the same to Seller (FRR Election Notice). For a period of four (4) months following FRR Election Notice (the "Due Diligence Period"), Company and its representative shall have the right to conduct any and all due diligence which Company may reasonably deem necessary with respect to the Facility and the Related Materials (collectively, hereinafter, for purposes of this Appendix, the "Facility"). Subject to execution by Company and Seller of a confidentiality agreement in a form reasonably acceptable to Seller and Company, Seller shall make available to Company and its representative during the Due Diligence Period full access to the Facility, related title work, surveys, contracts, data and records, and operating personnel ("Full Access"). The Due Diligence period will be extended day-for-day to the extent that, due to Seller's default, force majeure or any other reason not attributable to Company, Full Access is not provided.

4. Promptly following Company's FRR Election Notice, Company and Seller shall each engage the services of an independent appraiser experienced in appraising solar power generation assets to determine separately the fair market value ("FMV") of the Facility. Subject to the appraisers' execution and delivery to Seller of a suitable confidentiality agreement in a form reasonably acceptable to Seller, Seller shall provide Full Access to both appraisers. The Seller and Company shall pay all reasonable fees and costs of their respective appraisers. Company and Seller shall each use their respective best efforts to cause its appraisal to be completed within two months following the date of the FRR Election Notice. If for any reason (other than failure by Seller to provide Full Access to Company's appraiser) one of the appraisals is not completed within the Due Diligence Period, the results of the other, completed appraisal shall be deemed the FMV of the Facility. Each party may provide to both appraisers (and to each other) a list of factors which the parties suggest be taken into consideration when the appraisers generate their appraisals.

5. Company and Seller shall exchange the results of their respective appraisals when completed and, in connection therewith, the parties and their appraisers shall confer in an attempt to agree upon the FMV of the Facility.

6. If, within thirty (30) days after completion of both appraisals, the parties cannot agree on a FMV for the Facility, the Seller may seek a third party buyer subject to the requirements of paragraph 13, or seek a third independent appraisal. A third independent appraiser shall be selected by the first two appraisers or, if the first two appraisers fail to agree upon a third appraiser, such appointment shall be made by the American Arbitration Association upon application of either party. The parties shall direct the third appraiser (i) to select one of the appraisals generated by the first two appraisers as the FMV of the Facility (without compromise, aka "baseball" arbitration), and (ii) to complete his or her work within one month following his or her retention. If the third appraiser selects the appraisal originally generated by Seller's appraiser, Company shall pay the fees and costs of the third appraiser. If the third appraiser selects the appraisal originally generated by Company's appraiser, Seller shall pay the fees and costs of the third appraiser.

7. Not later than thirty days following agreement upon or determination of FMV as provided herein ("FMV Price"), Company must either (i) provide Seller with a written notice declining to purchase the Facility at the FMV Price or (ii) provide Seller with a written notice of Company's binding intent to purchase the Facility at the FMV Price ("Purchase Price").

8. If Company elects to purchase the Facility, Company and Seller shall execute a purchase and sale agreement ("PSA"), under which Seller will sell and Company or its assign will purchase the Facility for the Purchase price at a closing ("Option Closing") to be held on a date to be acceptable to Seller and Company. The Purchase Price may be adjusted for (i) all applicable appraisal fees as determined in Parts 4 and 6 above and (ii) any other closing price adjustments identified in the PSA. Company may include a provision in the PSA that the PSA or closing is/are conditioned upon appropriate PUC approval.

9. Between the date of the PSA and, as applicable, Option Closing or termination of the PSA without closing, Seller will be precluded from taking certain actions (to be specified in the PSA) that would adversely affect Company, such as (i) increasing the amount of Facility Debt, (ii) granting new easements and other liens on the Facility, iii) failing or deferring required maintenance on the Facility, and (iv) failing to keep the Facility Debt current.

10. Under the PSA, among other standard provisions, effective as of the Option Closing:

a. Seller will execute and deliver to the Company such deeds, bills of sale, assignments and other documentation as Company may request to convey good and marketable title to the Facility free from encumbrances;

b. Seller will cause all liens on the Facility for monies owed (including liens securing Facility Debt), and any liens in favor of affiliates, to be released at Closing;

c. Seller will warrant good and marketable title to the Facility, free and clear of all

other liens and encumbrances other than easements and other encumbrances of record as of the date of Option Closing;

d. Company shall have no liability for damages (including without limitation, any development and/or investment losses, liabilities or damages, and other liabilities to third parties), incurred by Seller on account of Company's exercise of the FRR Option, nor any other obligation to Seller except for the Purchase Price and Seller shall indemnify Company against any such losses, liabilities or damages;

e. Company shall assume all of Seller's obligations with respect to the Facility accruing from and after the Option Closing Date, including (i) to the extent assignable all governmental permits and approvals held by, for, or related to the Facility, and (ii) all of Seller's agreements with respect to the Facility provided to Company during the Due Diligence Period, except for such agreements Company has elected to terminate, in which case any related termination expenses shall be, at Company's option, paid directly by Company or included in the Purchase Price;

f. Seller will warrant that the Facility is in good operating order and repair, ordinary wear and tear excepted, in condition to perform in accordance with past practice, with no major maintenance items deferred, except as disclosed to Company in writing during the Due Diligence Period;

g. Seller will warrant that, except as disclosed to Company in writing during the Due Diligence Period, the Facility conforms and has been operated by Seller in conformity with all environmental and other laws and regulations;

i. Except for the foregoing, Company will accept the Facility "as is, with all faults;"

j. Seller will warrant that Seller provided full access to Company and each appraiser; and

k. Seller's Site License related to the Site Owner property will terminate and Seller will relinquish all rights, privileges and obligations relating to the Site License.

11. The FRR Option, if elected, will be specifically enforceable against the owner of the Facility. The FRR Option also will bind Seller's Lender and any person that acquires the Facility through foreclosure, deed-in-lieu of other exercise of the Lender's rights. The Lender will ratify the FRR Option in the Lender Consent to be signed with Company. At Seller's election, Seller's Lender will have the right to receive the Purchase Price and otherwise exercise Seller's rights upon any exercise of the FRR Option in connection with a default by Seller.

12. The PSA will be specifically enforceable against the owner of the Facility.

13. Right of Last Refusal (RLR Option): The Seller shall not sell the Facility during the first year of commercial operation as measured from the Commercial Operation Date. Thereafter, if during the Term of this Agreement, and provided that Seller is not in default, Seller desires to

sell the Facility to a third party, then Seller shall notify Company in writing of Seller's intent to sell, the terms and conditions of the proposed sale, and the identity of the third party. Within thirty (30) days from receipt of notice to sell by Seller, Company shall notify Seller of Company's intent to purchase the Facility at the terms and conditions of the proposed sale to the third party. If Seller has not received Company's Intent to Purchase within thirty (30) days then Seller shall have the right to sell the Facility for the terms and conditions as presented to Company. Company shall have the right to examine final closing documents between Seller and Third Party.

14. Company's FRR Option and RLR Option will survive any change in ownership of the Facility.

EXHIBIT G

SITE LICENSE TERMS AND CONDITIONS

These terms and conditions govern Seller's license to use the project site ("Site" or "Premises") during the term of the Agreement. The owner of the site shall be designated as "Site Owner" or "Host" for the purpose of this agreement.

Site/Premises

The Site is comprised of (Insert Host Site description)

1. Term

Seller shall have use of the Site for the duration of the Agreement.

2. Use

a. Permitted Use

Seller will use the Premises solely for the purposes allowed under the Agreement, including construction, installation and operation of the Seller's facility.

b. Prohibited Use

The Premises shall not be used for other activities unless first approved in writing by Company, and the Premises shall be kept at all times in a neat and orderly condition. Seller shall not make or suffer any waste or any unlawful, improper or offensive use of the Premises.

3. Seller's Expenses

Company will pay reasonable electric utility expenses directly related to Seller's use of the Site for permitted purposes, if necessary.

4. Acceptance of Premises

The Seller accepts the Premises in the condition they are in at the commencement of the Agreement, and acknowledges that the Company has made no representations concerning the conditions of the Premises or their suitability for the use intended to be made thereof. Seller accepts and assumes all risks with respect to entry upon the Premises and the conditions thereof, including without limitation, any dangerous conditions (latent or patent).

5. Alteration and Maintenance of Premises; Inspection; Access

a. General -

1. Installation - Except for installation of the Seller's facility in compliance with the Company-approved plans, no alterations to the Premises, and no improvements or additions, permanent or temporary, of any kind shall be made without the prior written consent of Company, which consent may be withheld at Company's discretion.

2. Insurance – Insurance shall be in accordance with Section 16 (Insurance) of the agreement.

3. Bonds - Prior to the commencement of the construction and installation of the Seller's facility, and any other work on the Premises by Seller, Seller shall furnish to Company a certificate or other evidence satisfactory to Company stating that each of Seller's contractors has obtained performance and payment bonds for not less than one hundred percent (100%) of the total cost of the work, naming Seller and Company as obligees. Such bonds shall be in form and amount and with sureties reasonably satisfactory to Company.

b. Ownership of Seller's Facility

Seller shall maintain ownership of Seller's facility as provided in the Agreement.

c. Restoration, Repair and Maintenance

Seller will at its own expense from time to time and at all times during the term of this License properly and substantially restore, repair, maintain and keep all improvements constructed or installed by Seller in the Premises in good and safe repair, order and condition, except reasonable wear and tear. Seller shall cause the improvements to be inspected periodically by qualified persons for the purposes of ascertaining and curing any disrepair or faulty condition and thereafter take all measures as may be required to prevent or cure any the same or any damage caused by the same.

d. Removal of Seller's facility

Unless otherwise provided in the Agreement, upon expiration or termination of this License, Seller, at its sole expense, shall remove the Seller's facility from the Premises and restore the Premises to the condition at the beginning of the term of this License existing prior to installation of the Seller's facility. Removal shall include photovoltaic panels, inverters, wiring, conduit, remote monitoring system, disconnection devices, and mounting hardware.

e. Inspection

Seller will permit Company and its agents at all reasonable times during the term of this License to enter the Premises and examine the state of repair and condition thereof, and will repair and make good at Seller's own expense all defects required by the provisions of this License to be repaired by Seller of which written notice shall be given by Company or its agents within thirty (30) days after the giving of such notice or such other reasonable time as may be specified therein. If for any reason Seller shall fail to commence and complete such repairs within thirty (30) days after the giving of such notice or such reasonable time as may be required by Seller so long as Seller has commenced such repairs and is diligently proceeding therewith, Seller may, but shall not be obligated to, make or cause to be made such repairs and shall not be responsible to Seller or anyone claiming by, through or under Seller for any loss or damage to the occupancy, business or property of any of them by reason thereof, and Seller will pay to Company, within ten (10) days following written demand by Company, all costs and expenses paid or incurred by Company in connection with such repairs, plus fifteen percent (15%) of such costs and expenses to cover Company's administrative and overhead expenses incurred in supervising or overseeing such work. If all such amounts are not paid by Seller to Company when due, then the unpaid amount thereof shall bear interest at 12% per annum from such due date until paid in full.

f. Access

Company reserves the right to enter the Premises at any time for the purpose of maintaining, replacing and/or repairing its facilities and property within and around the Premises, and, except to the extent of Company's negligence, the Company shall not be liable for any direct or indirect damage to the Seller's property on the Premises from whatever cause arising from the right of entry.

6. Compliance with Laws

The Seller shall observe and comply with all applicable laws, regulations, governmental rules, orders and ordinances, and with standards adopted or recommended by any governmental authority having jurisdiction applicable to Seller's use of the Premises and/or the Seller's facility. Seller agrees to hold harmless, defend and indemnify the Company and its employees, directors, and agents from and against all actions, suits, damages, losses, liabilities, claims, costs and expenses, including attorney's fees, by whomsoever brought or made by reasons of the non-observance of these laws, rules, orders, ordinances and standards.

7. Hazardous Materials

Seller shall not permit any of its employees, agents, contractors, or any other person to use, handle, discharge, release, dispose of or allow to exist on, within, under or about the Premises any Hazardous Material, except in full compliance with all applicable Environmental Requirements.

If Seller at any time becomes aware of any Hazardous Discharge or of any Environmental Claim with respect to any activity related to this License, Seller will immediately so advise Company in writing. Furthermore, upon Company's request, Seller shall provide to Company detailed reports of the event to the extent of Seller's knowledge thereof. Company shall have the right, in its sole and absolute discretion, to join and participate in any settlement, remedial actions, legal proceedings or actions initiated with respect to any Environmental Claim.

If Seller receives, with respect to any activity related to this License, any notice from a Governmental Agency of (1) any violation of or noncompliance with any Environmental Requirement, (2) the occurrence of a Hazardous Discharge connected with any activity related to this License, caused by Seller, or (3) any Environmental Claim affecting any activity related to this License, Seller will notify Company in writing of the foregoing within three days of receipt of such notice and, if such violation, non-compliance, occurrence, or Environmental Claim arises from the negligence or misconduct of Seller shall (A) promptly comply with the Environmental Requirements and all other laws to correct, contain, clean up, remediate, remove, resolve or minimize the impact of such Hazardous Material, Hazardous Discharge or Environmental Claim and (B) either (i) post with Company a bond from a surety or a letter of credit issued by a Hawaii lending institution (the surety or the lending institution, and the form, substance and amount of the bond or letter of credit to be reasonably satisfactory to Company and the applicable Governmental Agency), or (ii) give to Company and the applicable Governmental Agency such other security reasonably satisfactory in form, substance and amount to both Company and the applicable Governmental Agency to assure that Seller does correct, contain, clean up, remove, resolve or minimize the impact of such Hazardous Material, Hazardous Discharge or Environmental Claim.

Seller shall be responsible for and shall defend, indemnify and hold harmless Company, and Company's directors, officers, employees, agents, successors and assigns, from and against any loss, damage, cost, expense or liability to the extent directly or indirectly arising out of or attributable to the release, threatened release, discharge, or disposal by Seller of Hazardous Materials connected with any activity related to this License, including without limitation: (1) all consequential damages; (2) the costs of any required or necessary repair, cleanup or detoxification of the Premises and the preparation and implementation of any closure, remedial or other required plans; (3) the costs of the investigation and handling of any Environmental Claim whether or not any suit or other formal legal proceeding shall have been commenced with respect to the Environmental Claims; (4) the costs of Company's enforcement, of this License, whether or not suit is brought; and (5) all reasonable costs and expenses incurred by Company in connection with clauses (1), (2), (3) and (4), including without limitation reasonable attorneys' fees and court costs.

Seller's obligations under this Section shall survive termination of this License.

Definitions

a. "Environmental Claim" means (1) any action or proceeding, legal or administrative, instituted or threatened by any Governmental Agency in respect of the premises alleging any violation or threatened violation of any law pertaining to Environmental Requirements, and (2) any and all claims made or threatened by any person against Seller or any other person or the premises for damages, losses, liabilities, liens, contribution, indemnity, cleanup and removal cost recovery, compensation, injunctive relief, penalties, fines or other relief resulting from the existence or discharge of a Hazardous Material connected with any activity related to this License.

b. "Environmental Requirement" means any present or future law, judgment, order, decree, permit, approval, plan, authorization, concession, grant, franchise, license, agreement and similar items of governmental agencies and action pertaining to the premises and relating to the protection of human health or the environment.

c. "Hazardous Discharge" means any event involving the disposal, spill, release or discharge of any Hazardous Material connected with any activity related to this License.

d. "Hazardous Material" means any substance (1) the presence of which requires investigation or remediation under any law applicable to any activity related to this License; or (2) which is or becomes defined as a "hazardous substance," pollutant or contaminant under any Environmental Requirement, including those substances listed in the Hawaii Environmental Response Law, HRS Chapter 128D, as amended, the United States Department of Transportation Hazardous Materials Table (49 Code of Federal Regulations, Section 172.101) or listed by the Environmental Protection Agency as hazardous substances (Title 40 Code of Federal Regulations, Section 302); or (3) which is toxic, explosive, corrosive, flammable, infectious, radioactive, carcinogenic, mutagenic, or otherwise hazardous and is or is becoming regulated by any Governmental Agency; or (4) the presence of which on or near the premises causes or with the passage of time may cause a nuisance upon the premises or to adjacent properties or poses or with the passage of time may pose a hazard to the health or safety of persons on or about the premises.

8. Assignment of License

Seller shall not assign its rights under this License or sublet this tenancy or part with possession of the Premises in whole or in part without the prior written permission of the Company.

9. Default

a. Seller shall be in default hereunder if it (i) fails to observe or perform any covenant or agreement to be observed and performed by the Seller hereunder and any such

default shall continue for 30 days after written notice to correct has been given to the Seller, (ii) abandon or fail to use the premises for a period of 30 days, or (iii) shall permit a materialman's or mechanic's lien to attach to the Premises and shall fail to have it released or discharged within 5 days after entry of judgment or order of court for foreclosure or other enforcement of the lien, or refuse, within 10 days after written request by the Company, to post a bond or deposit with the Company an amount sufficient to discharge the lien, the Company may, in any such event, at once re-enter the Premises and with or without physical entry at its option terminate this License and thereupon take possession of the Premises and become wholly vested with all rights, title and interest of the Seller or those claiming under it and their effects, without becoming liable for any loss or damage which may thereby be occasioned and without prejudice to any other remedy or right of action which the Company may have.

b. The Seller will pay all costs and expenses, including collector's and attorneys' fees, which may be incurred by the Company in enforcing the conditions set out in this License, or in collecting any delinquent rent or recovering possession of the Premises.

10. Indemnity – Personal injury, property damage, mechanics' liens

The Seller shall also save harmless, defend, and indemnify the Site Owner and Company and its employees, directors and agents from and against any actions, suits, damages, losses, liabilities, claims, costs or expenses, including attorneys' fees, on account of any personal injury or death, alleged or real, and damages to property, alleged or real, arising, directly or indirectly, from Seller's use or possession of the Premises, except to the extent such injury or damage is caused by the sole negligence, gross negligence or willful misconduct of the Company, its employees, directors or agents, and whether due to the condition or imperfections of the Premises themselves or any equipment thereon, whether latent or patent or from other causes whatever. Seller will hold all supplies, equipment and other property on the Premises at its risk and shall indemnify and defend the Company from any loss or damage thereto as provided above.

Seller also (1) shall keep the Premises free and clear of all liens, claims, and encumbrances arising from Seller's use of and construction of improvements on the Premises, and (2) shall indemnify and save harmless the Company from all claims, demands, causes of action, or suits of whatever nature, including but not limited to reasonable attorneys' fees and costs, arising out of services, labor, and materials furnished by or to the Seller or his subcontractors under this License.

11. Condemnation

In the event the premises or any part thereof shall at any time or times during the tenancy be taken or condemned by any authority having the power of eminent domain, the estate and interest of the Seller in the premises so taken or condemned shall at once terminate, and the Seller shall not by reason of such taking or condemnation be entitled to any claim against the Company or others for compensation. In the event of any such taking, Seller will have the right to assert a claim against the condemning authority in a separate action for (i) Seller's moving expenses; (ii) Seller's improvements owned by Seller; and (iii) Seller's license interest hereunder so long as Company's award is not reduced by such claim.

12. Termination

Upon termination of the Agreement, and except as otherwise provided herein or in the Agreement, the Seller will peaceably deliver possession of the Premises, together with all improvements by whomever made in good condition and repair, provided, however, that the Seller shall upon written request of the Company, remove all improvements made or installed by the Seller and return the surface of the Premises to a good and orderly condition and even grade.

If the Seller fails to remove all improvements and personal properties as requested by the Company, or to return the Premises to good and orderly condition as provided herein, Company may perform these activities at the Seller's expense and the Seller shall reimburse Company for such activities upon demand by Company.

13. Unauthorized Occupancy

If Seller continues to use or occupy the Premises after the Agreement is terminated and without written permission from Site Owner and Company, the Seller will be considered occupying the Premises as a "holdover Seller." The rent for Seller's holdover period will be fair market value until the Premises are satisfactorily vacated. Acceptance of rent during such holdover period shall not thereby create any valid and enforceable tenancy on the part of Seller and shall not prejudice Site Owner or Company's legal rights to terminate Seller's occupancy of the Premises.

14. Successors and Assigns

This License and the terms, covenants, and conditions hereof shall be binding upon the parties hereto and their respective successors and permitted assigns.

15. No Assignment

This License may not be assigned by Seller in whole or in part without the prior written consent of Company. Any and all assignees shall be bound by all of Seller's obligations under this License.

16. Loss or Damage to Seller's facility

In case of loss or damage to the Seller's facility, Seller shall with all reasonable speed, rebuild, repair or otherwise reinstate the Seller's facility in accordance with the original plans or such modified plans conforming to laws then in effect as approved in writing by Company. All proceeds of any applicable insurance shall be used for such purpose, and Seller will make up any deficiency in the insurance proceeds from its own funds.

17. Host Operations

Seller acknowledges that Site Owner maintains and operates (insert description of Site Owner business activities) on the property and beneath the Premises. Seller agrees not to interfere in any way with Site Owner use of the property.

EXHIBIT H

DISPUTE RESOLUTION

1. Good Faith Negotiations

Before any dispute under this Agreement is subjected to the provisions of Section 2 of this Appendix I or any litigation, the presidents, vice presidents, or authorized delegates from both the Seller and the Company having full authority to settle the dispute, shall personally meet in Hawaii and attempt in good faith to resolve the dispute.

2. Dispute Resolution Procedures

If the parties are unable to resolve any dispute under this Agreement under the procedures of Section 1 of this Appendix I, such dispute shall be resolved in Hawaii by binding arbitration in accordance with the requirements of this Section 2; provided that, this agreement to arbitrate shall be specifically enforceable and this Appendix I shall not preclude either party from pursuing its equitable remedies to enforce this agreement to arbitrate, including without limitation, seeking injunctive relief. Company and Seller agree that the procedures in this agreement to arbitrate shall be followed to the extent not prohibited by Hawaii Revised Statutes Chapter 658A ("Chapter 658A"). If any of such procedures conflict with Chapter 658A, then except as otherwise prohibited in Chapter 658A, Company and Seller agree to waive, or vary the effect of, the requirements of Chapter 658A.

a. Initiation of Arbitration

Either party shall give to the other written notice in sufficient detail of the existence and nature of any dispute proposed to be arbitrated under this Section 2 and the remedy sought as well as a detailed statement of its contentions of law and fact. Such notice shall be made within a reasonable time after the dispute in question arose, and in no event shall such notice be made after the date when institution of legal or equitable proceedings based on such dispute would be barred by the applicable statute of limitations but for this Appendix I. Such notice will be signed by the president of the party issuing the notice and be delivered to the president of the other party. The other party shall file an answering statement within twenty (20) days of receipt of the notice. After the answering statement is filed, the parties shall diligently negotiate in good faith for a period of sixty (60) days.

b. Appointment of Arbitrator

If the dispute is not resolved through the negotiations required by Section 2.a of this Appendix I, the parties shall attempt to agree on a person with special knowledge and expertise with respect to the design, construction and operation of electric generating facilities to serve as an arbitrator panel of one. If the parties cannot agree on an arbitrator within twenty (20) days after the negotiation period required by Section 2.a

of this Appendix I, each party shall within five (5) days, appoint one person to serve as an arbitrator and the two arbitrators thus appointed shall select a third arbitrator to serve as chairman of the panel of arbitrators; and such three arbitrators shall determine all matters by majority vote; provided, however, if the two arbitrators appointed by the parties are unable to agree upon the appointment of the third arbitrator within twenty (20) days after their appointment, both shall give written notice of such failure to agree to the parties and, if the parties fail to agree upon the selection of such third arbitrator within twenty (20) days thereafter, then either of the parties upon written notice to the other may require such appointment from and pursuant to the rules for commercial arbitration of the American Arbitration Association. In selecting arbitrators under this Section 2.b, the parties shall give preference to qualified Hawaiian domiciliaries.

Each arbitrator appointed pursuant to this Section 2.b shall swear to conduct such arbitration in accordance with the terms of this Section 2, the laws of the State of Hawaii, and the Code of Ethics of the American Arbitration Association. Each arbitrator who would be disqualified for any reason that would disqualify a judge under the Code of Judicial Conduct shall immediately resign or be withdrawn as an arbitrator. The arbitration panel may choose legal counsel to advise it on the remedies it may grant, procedures and such other legal issues as the panel deems appropriate. Copies of the notice, the statement of contentions of law and fact, the answering statement and this Agreement shall promptly be furnished by the initiating party to the arbitrator(s) selected.

c. Arbitration Procedures

(1) The parties shall have one hundred and twenty (120) days from the date of the formation of the arbitration panel to perform discovery and present evidence and argument to the arbitrators. During this period, the arbitrators shall be available to receive and consider all such evidence as is relevant, within reasonable limits due to the restricted time period, and to hear as much argument as is feasible, giving a fair allocation of time to each party to the arbitration. This period may be extended for sufficient cause by the arbitration panel or by agreement of the parties. The arbitration panel shall have the general powers of a court and may proceed in accordance with established rules of evidence and procedure, liberally construed to promote justice and expeditious resolution of the dispute. The arbitration panel shall have complete discretion over the mode and order of discovery, presentment of evidence, and the conduct of the hearing. The arbitrators shall not consider any evidence or argument not presented during such period. To the extent not prohibited by law and to the extent not in conflict with the procedures set forth in this Section 2, such arbitration shall be held in accordance with Chapter 658A, and the prevailing rules of the American Arbitration Association for commercial arbitration.

(2) The arbitrators shall use all reasonable means to expedite discovery and to sanction non-compliance with reasonable discovery requests or any discovery order. The Seller shall require and warrant that (i) all records of the Seller, its partners, members, or affiliates pertaining to the negotiation, administration, and enforcement of this Agreement shall be maintained in the possession of the Seller, and (ii) each of its officers, employees, general partners, or managing members will submit to the jurisdiction of the arbitration panel appointed pursuant to this Appendix I and shall respond to all reasonable discovery requests of such arbitration panel. All documents and deponents made available in response to reasonable discovery requests shall be made available in Honolulu, Hawaii.

(3) At the conclusion of such one hundred and twenty (120) day period, the arbitrators shall have thirty (30) days to reach a determination and to give a written decision to the parties, stating their findings of fact, conclusions of law and final order.

(4) Pending resolution of disputes pursuant to this Appendix I, which disputes relate to or impact the Seller's construction schedule for the Seller's Facility, all applicable deadlines and cure periods under this Agreement shall be extended on a day-for-day basis.

d. Arbitrator Limitations

The arbitrators shall have authority to interpret and apply the terms and conditions of this Agreement and to order any remedy allowed by this Agreement, but may not change any term or condition of this Agreement, deprive either party of a remedy expressly provided hereunder, or provide any right or remedy that has been excluded hereunder.

e. Decision Binding on the Parties

The decision of the arbitrators shall be binding on the parties at such time as the decision is confirmed by order of a court of competent jurisdiction pursuant to Chapter 658A.

f. Cost of Arbitration

The arbitrators in rendering their decision shall also state which party prevailed over the other party, or that neither party prevailed over the other. The costs of arbitration (including the attorney fees and costs of the parties and legal counsel appointed pursuant to Section 2.b of this Appendix I) will be borne by the party which is not the prevailing party. In the event neither party prevails, the parties shall each pay fifty percent (50%) of the cost of the arbitration, arbitrator/chair of the panel, and any legal counsel appointed pursuant to Section 2.b of this Appendix I. Also, in the event

neither party prevails, the parties each shall bear their own costs, including attorney fees, and those of the arbitrator they appointed to the panel of three arbitrators.

STATE OF HAWAII)
) ss.
CITY AND COUNTY OF HONOLULU)

DARCY ENDO-OMOTO, being first duly sworn, deposes and says: That she is the Vice President of Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc, Maui Electric Company, Limited, Applicants in the above proceeding; that she makes this verification for and on behalf of HAWAIIAN ELECTRIC COMPANY, INC., HAWAII ELECTRIC LIGHT COMPANY, INC., and MAUI ELECTRIC COMPANY, LIMITED and is authorized so to do; that she has read the foregoing application, and knows the contents thereof; and that the same are true of her own knowledge except as to matters stated on information or belief, and that as to those matters she believes them to be true.

Darcy Endo-Omoto

Subscribed and sworn to before
me this 30 th day of April, 2009

DEBORAH ICHISHITA NOTARY 04-409 PUBLIC STATE OF HAWAII

Deborah Ichishita

Notary Public, FIRST A Circuit,
State of Hawaii

My Commission expires July 18, 2012

Doc. Date: 4/30/2009 # Pages: 112
Name: DEBORAH ICHISHITA First Circuit
Doc. Description HECO, HELCO and MECO Application, Exhibit A, Verification and Certificate of Service

Deborah Ichishita 4/30/09
Signature Date

NOTARY CERTIFICATION

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In The Matter Of The Application Of **HAWAIIAN ELECTRIC COMPANY, INC.** **HAWAII ELECTRIC LIGHT COMPANY, INC.** **MAUI ELECTRIC COMPANY, LIMITED** **For Approval of a PV Host Pilot Program, Recovery of Program Related Expenses through Designated Recovery Mechanisms, Inclusion of Related Purchased Energy Costs in the Energy Cost Adjustment Clause, and Approval to Commit Funds in Excess of $2,500,000.**	**DOCKET NO.**

CERTIFICATE OF SERVICE

I hereby certify that I have this date served two copies of the foregoing application, together with this Certificate of Service, by making personal service to the following and at the following address:

Division of Consumer Advocacy
Department of Commerce and Consumer Affairs
335 Merchant Street, Room 326
Honolulu, Hawaii 96813

DATED: Honolulu, Hawaii, April 30, 2009.

HAWAIIAN ELECTRIC COMPANY, INC.

Marisa K Chun

Marisa K. Chun